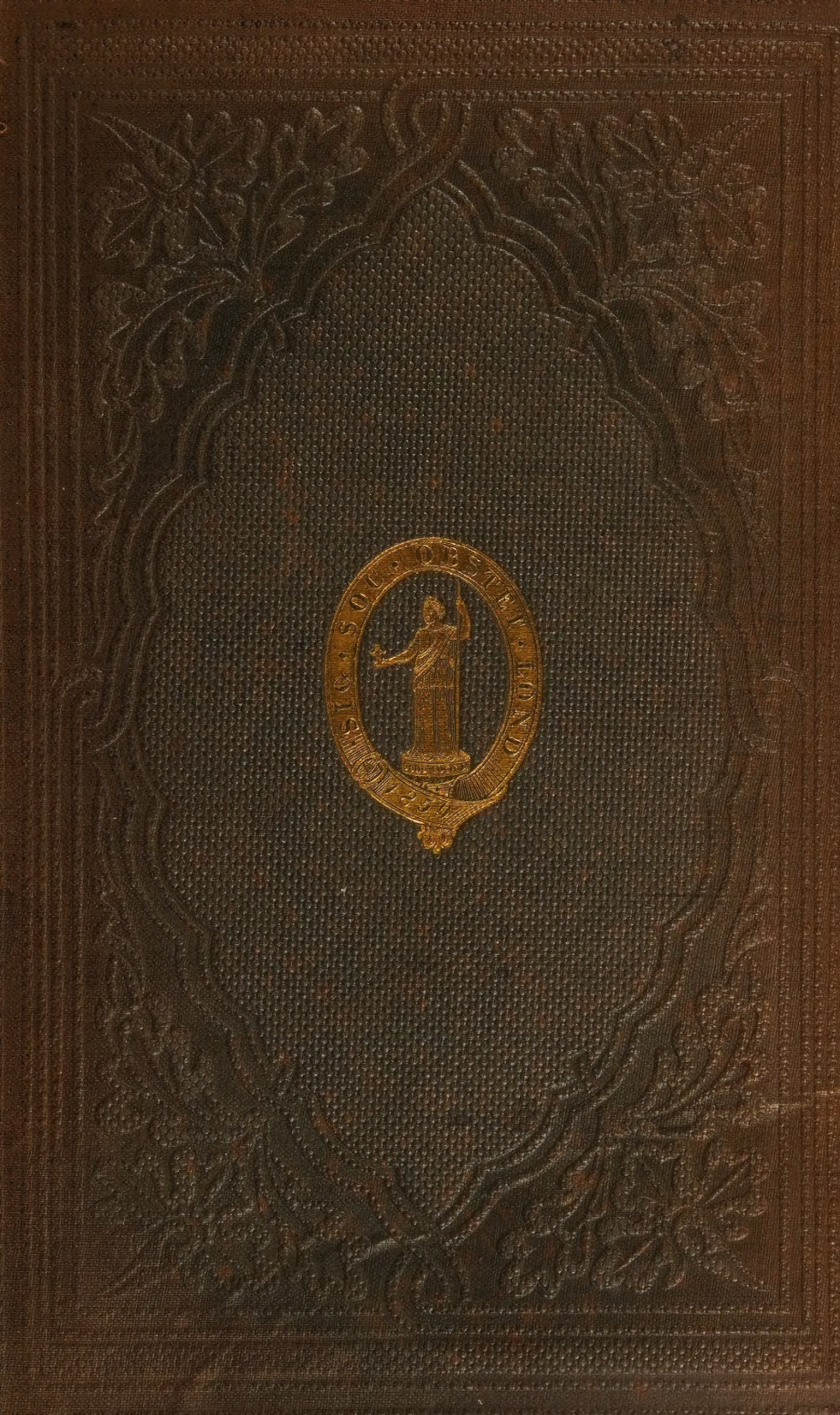
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VOL. II.

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OF

LONDON.

VOL. II.

FOR THE YEAR 1860.

WITH A LIST OF OFFICERS, FELLOWS, ETC.

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Archibald Hall, M.D., Professor of Midwifery, University of McGill College, Montreal, Canada.

James Y. Simpson, M.D., Professor of Midwifery, University of Edinburgh, Physician-Accoucheur to the Queen in Scotland, 52, Queen Street, Edinburgh.

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1859 AMSDEN, GEORGE JOHN, M.D., 5, Gloucester terrace, St. John's, Hoxton, N.

1859 ANDREWS, JAMES, M.D., 8, Cornwall crescent, Camden road, N.W.

1859 ARCHER, JOHN, F.R.C.S.E., Surgeon to the Birmingham Lying-in Hospital, Deritend, Birmingham.

1859 ARDEN, ARTHUR OCTAVIUS, Surgeon to the Hull Lying-in Charity, 29, Nile street, Hull.

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1859 BATTY, EDWARD, Lecturer on Midwifery and Diseases of Women and Children to the Liverpool School of Medicine; 34, Stafford street, Liverpool. *Council,* 1859-60.

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1859 BILLINGHURST, HENRY, M.D., 5, Church row, Islington, N.

1859 BIRD, FREDERIC, M.D., Lecturer on Midwifery and Diseases of Women in the Westminster Hospital School of Medicine, Senior Physician to the Westminster Maternity Charity; 62, Park street, Grosvenor square, W. *Council,* 1859.

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1859 BLOXAM, W., M.D., Lecturer on Midwifery at the Grosvenor Place School of Medicine; 28, Duke street, Grosvenor square, W. *Council*, 1860-61.

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1859 GRIMSDALE, THOS. F., Surgeon to the Lying-in Hospital, and Lecturer on Diseases of Children at the Royal Infirmary School of Medicine; 12, Rodney street, Liverpool. *Council*, 1861.

1859 GUEST, EDMUND, F.R.C.S.E., L.R.C.P. Edinb.; 20, Halsey street, Chelsea, S.W.

1859 GUNN, THEOPHILUS MILLER, F.R.C.S.E., 40, York place, Baker street, W.

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1859 HADEN, FRANCIS SEYMOUR, F.R.C.S.E., Hon. Surgeon to the Government School of Science and Art; 62, Sloane street, S.W. *Council*, 1861.

1859 HALL, ALFRED, M.D., Senior Physician to the Brighton Dispensary; 30, Old Steyne, Brighton. *Hon. Loc. Sec.*

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1859 HARDEY, ROBERT, late Lecturer on Obstetrics, Hull and East Riding School of Medicine; 3, Charlotte street, Hull. *Council*, 1860-61. *Hon. Loc. Sec.*

1859 HARLEY, GEORGE, M.D., Professor of Medical Jurisprudence, University College, and Physician to the Northern Dispensary; 77, Harley street, Cavendish square, W. *Council*, 1861.

Elected

1859 HARPER, PHILIP H., F.R.C.S.E., Assistant-Surgeon to the London Home for Surgical Diseases of Women; 30, Cambridge street, Hyde Park, W.

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1860 HICKS, JOHN BRAXTON, M.D., Assistant Physician-Accoucheur to Guy's Hospital; 6, Wellington street, London bridge, S.E. *Council*, 1861.

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1859 HIRD, FRANCIS, F.R.C.S.E., formerly Surgeon to the Royal Infirmary for Children, Surgeon to Charing Cross Hospital; 17, Clifford street, Bond street, W. *Council*, 1861.

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1859 HUTCHINSON, JONATHAN, Assistant-Surgeon to the London Hospital; 14, Finsbury circus, E.C.

1859 ILOTT, JAMES WILLIAM, Bromley, Kent.

1859 IMAGE, WILLIAM EDMUND, F.R.C.S.E., Senior Surgeon to the Suffolk General Hospital; Bury St. Edmunds, Suffolk.

1859 IRWIN, WILLIAM CROSSLEY, M.D., Belvoir street, Leicester.

1859 JACKSON, HENRY, M.D., Seaton, Workington, Cumberland.

1859 JAMES, HENRY, F.R.C.S.E., Surgeon and Accoucheur to the City of London Lying-in Hospital; 17, Artillery place, City Road, E.C.

1859 JENNINGS, JOSEPH C. S., Abbey House, Malmesbury, Wilts.

1860 JEPSON, HENRY, F.R.C.S.E., Surgeon to the Kingston Dispensary, Hampton, Middlesex, S.W.

1859 JESSOP, WALTER, Surgeon to the General Hospital and to the Dispensary for Diseases of Women and Children; 4, Royal crescent, Cheltenham.

1859 JONES, GEORGE, 12, New Hall street, Birmingham.

1859 JONES, JOHN WILLIAM, 8, Brynteg terrace, Upper Bangor, Caernarvonshire.

1859 JONES, SYDNEY, M.B. Lond., F.R.C.S.E., Assistant-Surgeon to St. Thomas's Hospital; 4, St. Thomas's street, Southwark, S.E.

1859 JULER, HENRY CUNDELL, M.D., 65, Connaught terrace, Hyde Park, W.

1859 KEALY, JOHN ROBERT, Surgeon to the Royal Portsmouth Hospital; High street, Gosport, Hants. *Hon. Loc. Sec.*

Elected

1859 KEELE, GEORGE THOMAS, 1, Bruce villas, St. Paul's road, Highbury.

1859 KENDALL, THOMAS MARSTERS, F.R.C.S.E., Surgeon to the West Norfolk and Lynn Hospital; King's Lynn, Norfolk.

1859 KENT, JACKSON G., 1, Surbiton-park terrace, Kingston-on-Thames.

1859 KENT, WALTON, Walsham-le-Willows, Ixworth, Suffolk.

1859 KIALLMARK, HENRY WALTER, 46, Princes square, Westbourne Grove, W.

1859 KIMBELL, JONATHAN HENRY, Manor House, Knowle, Birmingham.

1859 KING, RICHARD, M.D., Physician-Accoucheur to the St George's and St. James's Lying-in Charity; 17, Savile row, St. James's, W.

1860 KINGSFORD, EDWARD, F.R.C.S.E., Surgeon to the Sunbury Dispensary; Sunbury, Middlesex, S.W.

1860 KISCH, JOSEPH, 2, Circus place, Finsbury Circus, E.C.

1859 LANGMORE, J. CHARLES, M.B., F.R.C.S.E., 20, Oxford terrace, Hyde Park, W. *Council*, 1861.

1859 LEE, NEWTON B. C., 11, Talbot terrace, Talbot road, Bayswater, W.

1859 LEECH, EDWARD, Pallant, Chichester, Sussex.

1860 LEISHMAN, WILLIAM, M.D., 80, Bath street, Glasgow.

1859 LITCHFIELD, VINCENT, 1, Edward's place, Kensington, W.

1859 LOCOCK, SIR CHAS., Bart., M.D., First Physician-Accoucheur to H.M. the Queen, Consulting Physician to the General Lying-in Hospital; 26, Hertford street, Mayfair, W. *Honorary President.*

1859 LOVE, GEORGE HEGINBOTHOM, M.D., Manor villa, New Wanstead, Essex.

1860 LOWE, JOHN, M.D., Surgeon to the West Norfolk and Lynn Hospital; King street, King's Lynn, Norfolk.

1859 MACKENZIE, FREDERICK WILLIAM, M.D., Senior Physician to the Western General Dispensary, and Physician-Accoucheur to the Paddington Maternity; 11, Chester place, Hyde Park gardens, W. *Council*, 1859.

1859 MACKINDER, DRAPER, M.D., Consulting Surgeon to the Gainsborough Dispensary; Gainsborough, Lincolnshire.

Elected

1859 MACKINLAY, JOHN, M.D., Isleworth, Middlesex.

1859 MACLAREN, ALEXANDER C., 29, Harley street, W.

1859 MACRAE, JOHN, 4, High street, Lewes, Sussex.

1859 MADGE, HENRY, M.D., 32, Fitzroy square, W.

1860 MARLEY, HENRY FREDERICK, Padstow, Cornwall.

1859 MARLEY, RICHARD, Bromyard, Herefordshire.

1860 MARSHALL, JAS., M.D., 5, Belvidere road, Upper Norwood, S.

1859 MARSHALL, JOHN BRAKE, 21, Princes st., Hanover square, W.

1859 MARSHALL, PETER, 42, Bedford square, W. C.

1860 MARTIN, HENRY VICTOR, F.R.C.S.E., Staines, Middlesex.

1859 MARTYN, WILLIAM, F.R.C.S.E., 6, Trevor terrace, Rutland gate, Brompton, S.W.

1859 MEADOWS, ALFRED, M.D., Assistant-Physician for Diseases of Women and Children to King's College Hospital, Physician-Accoucheur to the St. George's and St. James's Dispensary; 9, Cavendish place, Cavendish square, W.

1859 MERRIMAN, SAMUEL WILLIAM JOHN, M.D., Consulting Physician-Accoucheur to the Western General Dispensary, 3, Charles street, Westbourne terrace, W. *Council*, 1859-60.

1859 METEYARD, CHARLES JOSEPH, M.R.C.P., Clunbury, Shrewsbury.

1859 MICHELL, GEORGE, St. Day, Truro.

1859 MILES, CHARLES, 13 Conduit st. west, Westbourne ter., W.

1859 MILLARD, WILLIAM JOSEPH, Portland house, Whitchurch, Herefordshire.

1859 MITCHELL, JOSEPH THOMAS, F.R.C.S., 8, Percy place, Clapham road, S.

1859 MITCHELSON, GEORGE FREDERICK, M.D., Physician to the Samaritan Free Hospital for Women and Children; 7, Kensington gardens terrace, Bayswater, W.

1859 MOORE, THOS., Surgeon to the Paddington Maternity Charity; 23, Cambridge street, Hyde Park, W.

1859 MOORHEAD, JOHN, M.D., Surgeon to the Weymouth Infirmary and Dispensary, Weymouth, Dorset.

1859 MOULLIN, JAMES MANSELL, Surgeon to the Westbourne Dispensary; 11, Porchester ter. North, Hyde Park. W.

Elected

1859 MOYLE, JOHN, Chacewater, Truro, Cornwall.

1859 MOYLES, THOS., M.D., 109, Broad street, Birmingham.

1859 MURPHY, WILLIAM, Willingham, near Gainsborough, Lincolnshire.

1859 MURPHY, EDWARD WILLIAM, M.D., Professor of Midwifery in University College, and Obstetric Physician, University College Hospital, Physician-Accoucheur to the Northern Dispensary; 59, Upper Berkeley street, Portman square, W. *Vice-Pres.* 1859-60.

1859 MURRAY, GUSTAVUS CHARLES P., M.D., 17, Green street, Grosvenor square, W.

1859 MUSGRAVE, JOHNSON THOMAS, Pembroke place, Finchley road, N.W. *Council,* 1859-60.

1859 NAPPER, ALBERT, Broad Oak, Cranley, Guildford, Surrey.

1859 NASON, RICHARD BIRD, Nuneaton, Warwickshire.

1859 NEAL, JAMES, 85, New Hall street, Birmingham.

1859 NEWMAN, WILLIAM, M.D., Fulbeck, Grantham, Lincolnshire.

1859 NEWNHAM, WILLIAM, Richmond villa, Tunbridge Wells, Kent.

1859 NEWTON, EDWARD, F.R.C.S.E., 30, Fitzroy square, W.

1859 NICHOLSON, WILLIAM HUNTER, 9, Phœnix street, Clarendon square, N.W.

1859 NUNN, THOMAS WILLIAM, Assistant-Surgeon to the Middlesex Hospital; 8, Stratford place, Oxford street, W.

1860 OAKSHOTT, JOHN, Highgate.

1859 O'FLAHERTY, THOMAS AUSTIN, M.D., 2, Baker street, Portman square, W.

1859 OLDHAM, JAMES, 53, Norfolk square, Brighton.

1859 OLDHAM, HENRY, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women and Children at Guy's Hospital; 26, Finsbury square, E.C. *Vice-Pres.* 1859. *Council,* 1860. *Treas.* 1861.

1859 ORFORD, WILLIAM COCKERELL, 211, High street, Deritend, Birmingham.

1859 OWEN, EDWARD ROBERT, F.R.C.S.E., Surgeon to the Oxford Lying-in Institution; Beaumont street, Oxford.

1859 PALFREY JAMES, M.D., 12, Wellington street, Southwark, S.E.

1860 PAYNE, CHARLES HENRY, M.D., Wimbledon, Surrey.

Elected

1860 PAYNE, EDWIN, L.R.C.P. Edin., 34, City road, Finsbury square, E.C.

1860 PAYNE, GEORGE BROWN, Manchester road, Hyde, Cheshire.

1860 PEARSE, GEORGE, L.R.C.P. Edinb., 10, Regent street, Westminster, S.W.

1859 PEIRCE, R. KING, 16, Norland place, Notting hill, W.

1859 PINCHARD, BENJAMIN, M.D., Cottenham, Cambridgeshire.

1860 PLOWMAN, WM. T., M.D., St. Austell, Cornwall.

1859 POLLARD, WILLIAM, Jun., Surgeon to the Torbay Infirmary and Dispensary, Torquay, Devon.

1860 POLLOCK, TIMOTHY, M.D., 26, Hatton Garden, E.C.

1860 PORTER, CHARLES, 54, Digbeth, Birmingham.

1859 POTTER, JEPHSON, M.D., 109, Upper Parliament street, Liverpool.

1859 POUND, GEORGE, Odiham, Hants.

1859 POWELL, ROBERT GEORGE, Buntingford, Herts.

1859 PRANCE, ROBERT ROOKE, M.D., Heath street, Hampstead, N.W.

1859 PRIESTLEY, W. O., M.D., Physician-Accoucheur to, and Lecturer on Midwifery at the Middlesex Hospital, and Physician-Accoucheur to the St. Marylebone Infirmary; 31, Somerset street, Portman square, W. *Council,* 1859-60-61.

1859 PRITCHARD, EDWARD WILLIAM, M.D., 11, Berkeley terrace, Glasgow. *Hon. Loc. Sec.*

1860 PROUDLOVE, THOMAS JAMES, M.R.C.P., Tattenham, Chester.

1859 PYLE, JOHN, F.R.C.S.E., 56, Oxford terrace, Hyde Park, W.

1860 QUINTON, CHARLES, Walsall street, Willenhall, Wolverhampton.

1859 RADFORD, THOMAS, M.D., Consulting Physician, St. Mary's Hospital, Manchester; Moor Field, Higher Broughton, Manchester. *Vice-Pres.* 1859.

1859 RAINEY, WILLIAM BAINES, L.R.C.P. Ed., Hogsthorpe, Lincolnshire.

1859 RAINS, JOHN, M.D., L.R.C.P. Ed., 36, Cavendish street, Manchester.

1859 RAMSAY, JOHN ALLEN, L.R.C.P. Ed., Great Shelford, Cambridge.

Elected

1860 RAMSBOTHAM, JOHN HODGSON, M.D., 16, Park place, Leeds.

1859 RANDALL, JOHN, M.D. Lond., Medical Officer, St. Marylebone Infirmary; 14, Portman street, Portman square, W.

1860 RANSOM, ROBERT, F.R.C.S., 5, Jesus lane, Cambridge.

1859 RAY, EDWARD, F.R.C.S.E., Dulwich, Surrey, S.

1860 RAYNER, JOHN, 19, Kingsland crescent, Kingsland road, N.E.

1860 RAYNER, THOMAS, M.D., Great Malvern, Worcestershire.

1859 RAYNES, HENRY, Gringley-on-the-hill, Bawtrey, Yorkshire.

1859 REE, HENRY PAWLE, L.R.C.P. Ed., Walham green, Fulham, S.W.

1859 REECE, GEORGE, 45, Sussex gardens, Hyde Park, W.

1859 REMINGTON, THOMAS, Medical Officer to the Clapham General Dispensary; 1, Grove place, North Brixton, S.

1860 RENTON, JOHN, Shotley bridge, Gateshead, Durham.

1860 RHODES, JAMES, Glossop, Derbyshire.

1859 RICE, JAMES, M.D., Surgeon to the Western Dispensary, Broadway, Westminster; 19, Langham street, Langham place, W.

1860 RICHARD, EDWARD WILLIAMS, Prospect House, Finchingfield, Essex.

1860 RICHARDS, JOHN SMITH CROSLAND, 36, Bedford sq., W.C.

1859 RICHARDS, SAMUEL, M.D., 36, Bedford square, W.C.

1859 RICHARDSON, RICHARD, L.R.C.P. Edinb., Rhayader, Radnorshire.

1859 RICHARDSON, WILLIAM THOMAS, Ivy House, Highgate, N.

1860 RITCHIE, GEORGE, M.D., Billinghay, Sleaford, Lincolnshire.

1859 ROBERTS, DAVID LLOYD, M.D., Surgeon to St. Mary's Hospital, Manchester; 23, St. John's street, Deansgate, Manchester. *Hon. Loc. Soc.*

1860 ROBERTS, ROBERT PRICE, Rhyl, Flintshire.

1860 ROBERTSON, CHARLES, L.R.C.P. Ed., 7, Queen street, Scarborough, Yorkshire.

1860 ROBINS, GEORGE, L.R.C.P. Ed., 45, Charlotte street, Fitzroy square, W.

1859 ROBINSON, THOMAS, M.D., 45, Cumming street, Pentonville, N.

1860 ROE, WILLIAM HAMILTON, M.B., M.R.C.P., Assistant-Physician to the Westminster Maternity Charity; 57, Park street, Grosvenor square, W.

Elected

1859 ROGERS, WILLIAM RICHARD, M.D., Physician to the Samaritan Free Hospital; 56, Berners street, Oxford street, W.

1859 ROOTS, WILLIAM SUDLOW, F.R.C.S.E., F.L.S., Surgeon to the Royal Establishment at Hampton Court; Kingston-on-Thames, S.W.

1860 ROPER, ALFRED GEORGE, High street, Croydon, Surrey.

1859 ROSE, HENRY COOPER, M.D., High street, Hampstead, N.

1859 ROSS, DANIEL, Surgeon to the Metropolitan Police; 10, Commercial place, Commercial road east, E.

1859 ROSS, GEORGE, L.R.C.P. Ed., Surgeon to the Western City Dispensary; 24, Farringdon street, E.C.

1859 ROUTH, CHARLES HENRY FELIX, M.D., Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-60-61.

1859 ROW, CHARLES, L.R.C.P. Ed., Lostwithiel, Cornwall.

1860 ROWLAND, WILLIAM, F.R.C.S.E., Surgeon to the Wrexham Infirmary; Wrexham, Denbighshire.

1860 RUSSELL, GEORGE, Bawtry, Yorkshire.

1859 RYAN, MICHAEL, M.D., Newcastle, Staffordshire.

1860 SALUSBURY, JOHN, Ty-Gwrydd, Conway, Caernarvonshire.

1860 SANDERS, GODFREY, F.R.C.S.E., 8, Brewer street, Maidstone, Kent.

1860 SAUNDERS, CHARLES, Foulsham, Norfolk.

1859 SCOTT, JOHN, F.R.C.S.E., Surgeon to the Hospital for Women, Soho square; 65, Harley street, Cavendish square, W.

1860 SEDGWICK, LEONARD WILLIAM, M.D., Boroughbridge, Yorkshire.

1859 SHARPIN, HENRY WILSON, Surgeon to the Bedford General Infirmary, Bedford.

1860 SHAW, GEORGE, Portland House, Battersea, S.W.

1859 SHAW, JAMES, L.R.C.P. Ed., 52, York street, Cheetham, Manchester.

1859 SHEARMAN, EDWARD JAMES, M.D., Rotherham, Yorkshire.

1859 SHEEHY, WILLIAM HENRY, L.R.C.P. Ed., 4, Claremont square, Pentonville, N.

1860 SHEPPARD, EDGAR, M.D., 10, Hanover terrace, Regent's Park.

Elected

1859 SHIPTON, WILLIAM PARKER, Surgeon to the Buxton Bath Charity; Buxton, Derbyshire.

1860 SHIRLEY, HENRY JAMES, Hartley row, Hampshire.

1859 SKEGG, ROBERT, 2, St. Martin's place, Trafalgar square, W.C.

1860 SKINNER, THOMAS, M.D., 1, St. James's road, Liverpool. *Hon. Loc. Sec.*

1859 SLEEMAN, PHILIP ROWLING, F.R.C.S., 11, Redcliffe parade west, Bristol.

1860 SLINN, WILLIAM SAMUEL, Ampthill, Beds.

1860 SMART, ROBERT, L.R.C.S. Edinb., 8, Colston's parade, Bristol.

1860 SMART, THOMAS TOVEY, L.R.C.P. Edinb., South Villa, Bedminster, Bristol.

1859 SMILES, WILLIAM, M.D., Physician to the Royal General Dispensary, St. Pancras; 43, Bedford square, W.C.

1860 SMITH, CHARLES CASE, F.R.C.S., Consulting Surgeon to the Suffolk General Hospital; Bury St. Edmund's, Suffolk.

1860 SMITH, JOHN, Coseley, near Bilston, Staffordshire.

1860 SMITH, JOSEPH EVANS, Ewias Harold, near Hereford.

1859 SMITH, PROTHEROE, M.D., Physician to the Hospital for Women, Soho square; 25, Park street, Grosvenor square, W.

1860 SMITH, ROBERT WILLIAM, F.R.C.S., Assistant-Surgeon, Hants County Hospital; 138, High street, Winchester.

1859 SMITH, SAMUEL, F.R.C.S.E., Senior Surgeon to the Leeds General Infirmary; Park place, Leeds. *Council*, 1860-61. *Hon. Loc. Sec.*

1859 SMITH, WILLIAM, M.D., Consulting Physician to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

1859 SMITH, W. TYLER, M.D., F.R.C.P., Physician-Accoucheur and Lecturer on Midwifery and Diseases of Women and Children to St. Mary's Hospital; 7, Upper Grosvenor street, W. *Treasurer & Vice-Pres.* 1859-60. *Pres.* 1861.

1860 SMITH, THOMAS, Crawley, Sussex.

1860 SNELL, EDMUND, 20, Stepney green, E.

1860 SNOW, JOHN ELLIOT, Walton, near Ipswich.

1859 SOMERVILLE, CHARLES, L.R.C.P., Bloxwich, Walsall, Staffordshire.

Elected

1859 SPENCER GEORGE, 1, Horbury terrace, Notting hill, W.

1860 SPENCER, LAWRENCE, M.D., 129, Church street, Preston, Lancashire.

1859 SQUIRE, WILLIAM, 6, Orchard street, Portman square, W.

1859 STANTON, JOHN, M.D., 7, Upper George street, Bryanston square, W.

1860 STEDMAN, ROBERT SAVIGNAC, Sharnbrook, Bedfordshire.

1860 STEELE, JAMES, M.D., Miles Platting, Manchester.

1860 STEPHENS, JOSEPH, L.R.C.P. Edinb., 4, Bishop's road, Bayswater.

1859 STONE, JOSEPH, M.D., 84, Bloomsbury, Oxford street, Manchester.

860 STONE, THOMAS, F.R.C.S.E., Res. Surg. to Christ's Hospital.

1860 STORRS, ROBERT, 23, Baxter gate, Doncaster, Yorkshire.

1859 STOWERS, NOWELL, 30, Newington place, Kennington, S.

1859 STUTTER, FREDERICK AUGUSTUS, Farnboro' House, Upper Sydenham, Kent, S.

1860 SUCKLING, CORNELIUS BENSON, M.D., Surgeon-Accoucheur, Queen's Hospital, Birmingham; St. Mary's square, Birmingham.

1860 SUMPTER, WALTER, M.D., Clay-next-the-Sea, Norfolk.

1860 SUTCLIFFE, WILLIAM, Staleybridge, Cheshire.

1859 SUTTON, JOHN MAULE, M.D., Tenby, Pembrokeshire.

1859 SWAYNE, JOSEPH GRIFFITHS, M.D., Physician-Accoucheur to the Bristol General Hospital; Clifton, Bristol. *Council*, 1860-61. *Hon. Loc. Sec.*

1860 SWEETING, GEORGE BACON, M.R.C.P., Lynn Regis, Norfolk.

1859 SYDENHAM, JOHN PUDSEY WELCHMAN, Islip, Oxon.

1860 SYKES, RICHARD, Drighlington, near Leeds.

1859 SYMONDS, FREDERICK, F.R.C.S.E., Surgeon to the Radcliffe Infirmary; 32, Beaumont st., Oxford. *Hon. Loc. Sec.*

1860 TAILER, GEORGE WASHINGTON, Bucklesham, near Ipswich, Suffolk.

1859 TANNER, THOS. HAWKES, M.D., F.L.S., Assistant-Physician for Diseases of Women and Children to King's College Hospital; 10, Charlotte street, Bedford square, W.C. *Hon. Sec.*, 1859-61.

1859 TAPSON, ALFRED JOSEPH, M.B. Lond., 35, Gloucester gardens, Westbourne terrace, W.

Elected

1859 TAYLOR, CHARLES, M.D., 4, Bethel place, Camberwell, S.

1859 TAYLOR, DAVID, 2, Kennington row, Kennington park, S.

1859 TAYLOR, EDWARD, Clapham common, S.

1860 THELWALL, WILLIAM, Farndon, Chester.

1860 THOMAS, FREDERICK, M.D., Tower terrace, Upper Norwood.

1859 THOMAS, J. HENRY, Physician-Accoucheur to the Royal General Dispensary, St. Pancras; 22, Pentonville road, N.

1860 THOMAS, RICHARD, Menai Bridge, Anglesea.

1860 THOMAS, RICHARD, R. G., L.R.C.P. Edinb., 1, High street, Hartland, Bideford, N. Devon.

1860 THOMAS, WILLIAM LANHAM, Horsham, Sussex.

1860 THOMPSON, MOSES DAVENPORT, F.R.C.S.E., Staleybridge, Cheshire.

1860 THORNE, GEORGE LEWORTHY, M.D., Holcombe Regis, Devon.

1860 THORNHILL, DAVID CLARKE, Atherstone, Warwickshire.

1859 THORNTON, PETER, M.D., 528, Church street, Dewsbury, Yorkshire.

1860 TIFFEN, ROBERT, Wigton, Cumberland.

1859 TILT, EDWARD JOHN, M.D., Consulting Physician to the Farringdon General Dispensary; 60, Grosvenor street, W.

1859 TIMES, HENRY G., 4, Thayer street, Manchester square, W.

1860 TOMKINSON, RICHARD, Cheadle, Staffordshire.

1860 TORBOCK, THOMAS REDDISH, M.D., 30, Skinnergate, Darlington.

1859 TRAER, JAMES REEVES, F.R.C.S., 47, Hans place, Sloane street, S.W.

1859 TROUNCER, JOHN HENRY, M.D., 6, Mount street, Grosvenor square, W.

1860 TUKE, JAMES KINGDON, 1, Devonshire place, Brighton.

1859 TULLOCH, JAMES STEWART, M.D., Surgeon to the Westbourne Dispensary; 1, Pembridge place, Bayswater, W.

1860 VALE, JAMES THEODRICK, L.R.C.P. Edinb., Hamilton sq., Birkenhead, Cheshire.

1859 VAUDIN, CHARLES, L.R.C.P. Edinb., Physician to the Jersey General Dispensary; 60, New street, St. Helier's, Jersey.

1860 VARENNE, EZEKIEL G., Kelvedon, Essex.

1860 VINCENT, PATRICK, Wells-next-sea, Norfolk.

1860 WADE, HENRY THOMAS, Trinity terrace, Derby.

Elected

1859 WAITS, JOSEPH, 9, Upper Worth street, Poplar, E.

1860 WAKEMAN, PETER RYDER, Bryn Rhûs, Crickhowel, Brecknockshire.

1860 WALES, THOMAS GARNEYS, Jun., Downham, Norfolk.

1859 WALLER, CHAS., M.D., Obstetric Physician and Lecturer on Midwifery to St. Thomas's Hospital; 9, Finsbury square, E.C. *Vice-Pres.* 1859.

1859 WALLER, JOHN TURPIN, Flegg Burgh, Norfolk.

1859 WALTON, THOS., 21, Charlotte street, Kingston-upon-Hull, Yorkshire.

1859 WANE, DANIEL, M.D., 20, Grafton street, Bond street, W.

1859 WARDEN, CHARLES, M.D., 39, Temple street, Birmingham.

1860 WATERWORTH, THOMAS HENRY, Surgeon to the Surrey Dispensary; 5, Bengal place, New Kent road.

1860 WALKER, THOMAS HOUGHTON, M.D., Tolleshunt D'Arcy, Kelvedon, Essex.

1860 WALKER, WILLIAM HENRY, L.R.C.P. Edinb., Aldborough, near Darlington.

1860 WARD, JOSEPH, Hill House, Epsom, Surrey.

1860 WARD, JOHN, Penistone, Sheffield, Yorkshire.

1859 WATSON, SAMUEL, F.R.C.S. Ed., Cottingham, Hull.

1859 WEBB, J. CRASKE, M.D., 23, Grosvenor street west, Eaton square, S.W.

1859 WEBB, HENRY SPEAKMAN, Welwyn, Herts.

1859 WEBSTER, GEORGE, Peckham Rye, S.E.

1859 WEEKES, JOHN, 4, High street, Bloomsbury, W.C.

1860 WELCHMAN, CHARLES EDWARD ELLIOT, Bore street, Lichfield, Staffordshire.

1859 WELLS, T. SPENCER, F.R.C.S.E., Surgeon to the Samaritan Free Hospital for Women and Children; 3, Upper Grosvenor street, W. *Council*, 1859.

1859 WEST, HENRY REGINALD, M.D., Harpenden, St. Alban's, Herts.

1859 WEST, ROBERT UVEDALE, M.D., Alford, Lincolnshire. *Council*, 1859. *Vice-Pres.* 1860-61.

1859 WESTMACOTT, JOHN GUISE, M.D., Medical Officer to the Paddington Provident Dispensary; 10, St. Mary's terrace, Paddington, W.

Elected

1860 WESTON, SPENCER, Carshalton, Surrey.

1860 WHEELER, DANIEL, Chelmsford, Essex.

1860 WHITE, FREDERICK GEORGE, L.R.C.P. Edinb., Erchfont, near Devizes, Wilts.

1860 WHITE, WILLIAM, Rajshahye, Bengal, and United Service Club; 14, St. James's square, W.

1859 WHITEHEAD, JAS., M.D., Physician to the Manchester Clinical Hospital; 87, Mosley street, Manchester. *Council*, 1859-60-61.

1859 WILDBORE, DANIEL HENRY GEORGE, M.D., 2, Charlotte street, Fitzroy square, W.

1859 WILKIN, HENRY, 39, Connaught terrace, Hyde Park, W.

1859 WILLIAMS, RICHARD PARRY, Minerd, Wrexham, Denbighshire.

1860 WILLIAMS, JOHN, L.R.C.P. Edinb., Llanerchymedd, Anglesea.

1860 WILLIAMS, PETER MAURICE G., Tyllwyd, near Trevine.

1860 WILLIAMS, ROBERT HANKINSON, L.R.C.P. Edinb., Great Eccleston, near Garstang, Lancashire.

1860 WILLOWS, JOHN WILLIAM, Melton Mowbray.

1860 WILLS, JOHN, M.D., St. Helier's, Jersey.

1860 WILSON, ROBERT JAMES, L.R.C.P. Edinb., St. Leonards-on-Sea, Sussex.

1859 WILSON, JONATHAN, F.R.C.S.E., 92, Bloomsbury, Oxford road, Manchester.

1859 WILSON, JAMES GEORGE, M.D., Physician-Accoucheur to the Lying-in Hospital and Dispensary; 143, Hope street, Glasgow.

1860 WINTERBOTHAM, JOHN, Castleton, near Sheffield, Derbyshire.

1860 WISEMAN, WILLIAM WOOD, Springstone House, Ossett, near Wakefield, Yorkshire.

1859 WITTEN, EDWARD W., 72, St. John street road, Clerkenwell, E.C.

1860 WOOD, WILLIAM JAMES, Brightwaltham, Wantage, Berks.

1859 WORSHIP, J. LUCAS, Riverhead, Sevenoaks, Kent.

1860 WRIGHT, GEORGE, Middleham, W. Bedale, Yorkshire.

1860 WRIGHT, JOSEPH HALL, Chatteris, Cambridgeshire.

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ADVERTISEMENT.

The Council of the Obstetrical Society of London deems it proper to state, that the various Communications and Essays which appear in the present volume are published on account of their general merit and interest. The several authors are alone responsible for the facts from which they deduce their observations, as well as for the opinions and reasonings set forth in their papers.

ADDRESS

DELIVERED AT THE

FIRST ANNIVERSARY MEETING OF THE SOCIETY,

JANUARY 4TH, 1859.

BY THE PRESIDENT,

EDWARD RIGBY, M.D., F.L.S., &c.

I HAVE the pleasing task of congratulating the Obstetric Society on having entered the second year of its existence.

It is with feelings of no ordinary gratification and pride that I look back upon the year which has just passed, for it has been a year of unprecedented success to our infant Society; indeed, I must not say a year, for it is only eleven months since we first met here—the mere nucleus of an institution which, without the zealous interest and powerful support of the profession at large, would have inevitably proved an utter failure. Of this, however, I am proud and happy to say, that from the very beginning there never was the slightest cause for apprehension; for from the earliest announcement of the proposal to form such a society, its success was a matter of certainty. Nevertheless I frankly acknowledge it was impossible to anticipate such success as the results of the last year have shown; and to you, my professional brethren, do I tender, in the name of the founders of this important Society, my warmest thanks for

the active and hearty support which you have given to this useful and valuable undertaking. You have given a heartiness of zeal and co-operation which has insured the success of the Society, and in less than one short year have backed it with such a list of names as has scarcely ever been equalled, certainly never surpassed, during the first year of any scientific society. This is no empty boast on my part, for I have the pleasure of announcing to you that the Obstetric Society numbers no less than 350 Fellows, to many of whom we are already indebted for a numerous list of valuable contributions, which will shortly form the first volume of the 'Obstetrical Transactions.' It would be invidious to mention any names in particular; suffice it to say that the coming volume of last year's 'Transactions' will take an honorable position among those of old and long-established scientific societies, and will contribute not a little to raise the character of English midwifery in the estimation of our foreign brethren.

It is now my duty to inform you that, among other labours in which the members of the council have been actively engaged, a very important and carefully drawn up memorial has been presented by them to the General Council of Medical Education and Registration, praying for a revision of the laws existing in the various examining bodies, as respects the obstetric education of medical students; which laws in their present state are very insufficient for insuring such an amount of proficiency as this important branch of the healing art not only deserves, but requires—the quantum of knowledge in midwifery being far inferior to what is demanded in the sister branches of medicine and surgery. As the details of this memorial are probably not known to many of you, I will take the liberty of reading them.

"*Memorial presented to the General Council of Medical Education and Registration by the Council of the* OBSTETRICAL SOCIETY OF LONDON.

"THE Council of the OBSTETRICAL SOCIETY OF LONDON desire, respectfully, to call the attention of the COUNCIL of MEDICAL EDUCATION AND REGISTRATION to the generally defective condition of medical education and examination in the Obstetric department of the profession; and they beg especially to remark upon the regulations of the various metropolitan examining bodies, with respect to this branch of practice.

"1. UNIVERSITY OF LONDON.—Candidates for the degree of M.B. may attend a single course of lectures on Midwifery, but this is not compulsory. They are required to produce a certificate of having conducted six labours. They are examined in Midwifery and the Diseases of Women and Infants at the second M.B. examination, in writing and *vivâ voce*—for the degree of M.D., no additional certificates are required. At this examination, a commentary is required either on a case of Medicine, Surgery, or Midwifery, at the option of the candidates.

"2. ROYAL COLLEGE OF PHYSICIANS.—Candidates for the licence are directed to study the Obstetric Art, but no regulations are laid down respecting attendance on lectures or practical instruction in this department. In the examinations, no provision is made for testing the Obstetric acquirements of candidates. It is well known that, with one or two exceptions, none of the censors, who are the examiners, have ever been selected from among those Fellows of the College engaged in the practice of Obstetric Medicine.

"3. ROYAL COLLEGE OF SURGEONS.—Candidates for the diploma of membership are required to have attended one three months' course of lectures on Midwifery. No attendance on cases is enjoined. In the examination, Midwifery is excluded. This is also the case with regard to the examination for the fellowship.

"The College of Surgeons examines candidates, and grants special certificates of qualification in Midwifery to the fellows and members, *and to others possessing no previous qualification;* but the examination is altogether optional. Before obtaining these certificates, candidates must attend one three months' course of lectures, and conduct thirty cases of labour.

"4. SOCIETY OF APOTHECARIES.—Candidates for the licence are required to attend one three months' course of lectures on Midwifery, and to conduct twenty cases of labour. The examination includes Midwifery and the Diseases of Women and Children.

"The insufficient attendance required on Obstetric Lectures and Practice, and the slender provision made for examination in this department of medicine, stand in strong contrast with the requirements of the various examining bodies in all that relates to lectures on Medicine and Surgery, and attendance on medical and surgical hospital practice.

"The University of London requires one year's medical, and one year's surgical practice, in separate years, for the M.B. degree; and two additional years of practical medicine for the M.D. degree.

"The College of Physicians requires for its licence, three years' attendance on the medical practice of a recognised hospital.

"The College of Surgeons requires for its membership, attendance on surgical practice in a recognised hospital during three winter and two summer sessions; and on medical practice during one winter and one summer session. The College also requires for the same examination, attendance during two winter sessions, on lectures on the principles and practice of Surgery. For the fellowship, attendance is required during four years upon the surgical, and during one year upon the medical, practice of a recognised hospital. Candidates are also required to have attended lectures on the theory and practice of Surgery and on Clinical Surgery; as well as on the theory and practice of Medicine and on Clinical Medicine, during two sessions, each of six months' duration.

"The Society of Apothecaries requires for its licence, attendance on the medical practice of a recognised hospital during eighteen months; attendance on one course of lectures on the principles and practice of Medicine, and on one course of lectures on Clinical Medicine.

"With regard to the required attendance upon lectures on Medicine and Surgery, it deserves to be remarked that the courses on Medicine and Surgery are winter courses of six months' duration; while the single course of Midwifery, required by the most stringent of the examining bodies, is a summer course, of three months' duration only. Until within the last few years, the lectures on Midwifery formed a winter course, when it was of six months' duration; and, up to a comparatively recent period, the Apothecaries' Society required two six months' courses of lectures on this subject. Thus, of late years, the provisions for Obstetric education have greatly diminished. The following table gives a comparative view of the requirements of the several examining bodies, as regards attendance on lectures and hospital practice in Medicine, Surgery, and Midwifery respectively.

Diplomas.	Hospital Medical Practice.	Hospital Surgical Practice.	Obstetric Practice.	Lectures on the Practice of Medicine.	Lectures on the Practice of Surgery.	Lectures on the Practice of Midwifery.	Lectures on Clinical Medicine.	Lectures on Clinical Surgery.	Lectures on Clinical Midwifery.
M.D. Lond.	Two years.	... ...	None.	... ...	... ...	None.	... ...	... ...	None.
M.B. Lond.	One year.	One year.	Six cases of labour.	... ..	.. ...	Optional.	Some: number not specified.	Some: number not specified.	None.
L.R.C.P.L.	Three years.	... ...	None.	... ...	... ...	None.	... ...	... ...	None.
F.R.C.S.E.	One year.	Four years.	None.	Two sessions of six months each.	Two sessions of six months each.	None.	Two sessions of six months each.	Two sessions of six months each.	None.
M.R.C.S.E.	One winter and one summer session.	Three winter and two summer sessions.	None.	... ...	Two sessions of six months each.	One session of three months.	One winter and one summer session.	Three winter and two summer sessions.	None.
Lic. in Midwif.	... ...	... ...	Thirty cases of labour.	... ...	... ...	One session of three months.	... ...	... ...	None.
L.S.A.	One year and six months.	... ...	Twenty cases of labour.	One session of six months.	... ...	One session of three months.	One session of six months.	... ...	None.

"The number of medical men engaged in Obstetric practice probably equals the number engaged in the practice of either Medicine or Surgery. They comprise a considerable number of the graduates of the University of London; of the fellows and licentiates of the College of Physicians, and fellows of the College of Surgeons; and the great body of members of the College of Surgeons and licentiates of the Society of Apothecaries. The M.B. degree of the University of London, and the licence of the Society of Apothecaries, are the only qualifications which offer any guarantee of the fitness of their possessors to practise in this department.

"The College of Surgeons has instituted a special examination in Midwifery, but the Medical Council cannot fail to observe that the possession of this licence is entirely voluntary, and that any fellow or member of the College may practise Midwifery without having passed any examination in this subject. On the other hand, the licence in Midwifery may be given to persons who are neither members of the College, nor possessed of any other qualification. Such licentiates in Midwifery may engage in general practice without any qualification in Medicine or Surgery. This special licence in Midwifery is derogatory to the position of the Obstetric practitioner, as tending to revive his supposed inferiority to the practitioner of Medicine and Surgery, which inferiority it has been the province of progressive science to remove. The social effect of the Midwifery licence is felt the more severely, since it has been proposed by the College of Surgeons to institute a special licence in Dentistry, with which it would in future be associated as apart from regular medical qualifications.

"The Council of the Obstetrical Society believe that the interests of the profession and the welfare of the public demand that the standard of education and examination for those who are engaged in the practice of Midwifery, should be as high in this department as that which obtains in Medicine and Surgery. Speaking of the large numbers occupied in the general practice of Medicine, Surgery, and Midwifery, they venture to assert that in the actual responsibilities of the practitioner, Midwifery is equally important with Medicine or Surgery. The reputation of the medical attendant, and the safety of the patient, depend as often upon a knowledge of Midwifery, as upon an acquaintance with the sister branches of the healing art.

"The Council respectfully suggest that the attendance on lectures on Midwifery by the student should equal the attendance required on Medicine or Surgery. They beg to express their deliberate conviction that it is quite impossible to teach the principles of Midwifery in a single three months' course of lectures.

"As regards practical instruction, the Council suggest that Lying-in-Hospitals, the Maternity Departments of general hospitals and other institutions, be in future recognised as schools of instruction in Practical

Midwifery, and that a specified and sufficient attendance upon them, similar to the attendance upon medical or surgical hospital practice, should be required from all students.

"As regards examination for licences, diplomas, and degrees, they further suggest that all candidates should, as in the Continental schools, be tested in Midwifery to the same extent as in Medicine and Surgery.

"Signed on behalf of the Council,

"CHARLES LOCOCK, *Honorary President.*
"EDWARD RIGBY, *President.*
"GRAILY HEWITT, } *Honorary Secretaries.*
"THOS. H. TANNER, }

"53, BERNERS STREET,
"*Aug.* 1*st*, 1859."

A few words will suffice to mention that an excellent form has been drawn up by the Honorary Secretaries for the registration of midwifery cases. If each Fellow will use this form, an immense mass of the most valuable information must in a few years accumulate, which one or two clear heads and willing hands will sift and re-arrange, so that important points, now subjects of dispute, may be cleared up and definitely settled.

And now, gentlemen, I must allude to another subject of graver import, not only because it is customary on such occasions, but also because it is fitting and right, that in reviewing the occurrences of the past year we should allude to those who have been with us and are not, who have finished their course and have passed away to those eternal mansions of heavenly bliss which the great Author and Finisher of our faith has prepared for those who love him.

It is my painful duty to announce the deaths of Dr. Lever, Mr. Squibb, and of Dr. Griffith.

For a record of the first I am indebted to the author of an excellent memoir which appeared in the 'Medical Times and Gazette' of January 8th, 1859.

The career of Dr. Lever affords a striking instance of the success in professional life which may be achieved by indefatigable industry, combined with moderate opportunities, although unaided by the gifts of fortune. His parents were

residents at Woolwich, where Dr. Lever was born. At the usual age he was apprenticed to Mr. Butler, a gentleman in extensive practice at Woolwich, and, in the course of time entered as a student at Guy's Hospital.

So great were his physical powers and his application to study at this period, that he actually walked daily from Woolwich to Guy's Hospital and back during his pupilage; while his close attention to study not only attracted the favorable notice of the medical officers of the hospital, but gained him many honorary distinctions at the annual competitive examination of the students.

At the end of his hospital studies, in 1834, he became a member of the Royal College of Surgeons of London, and commenced general practice in the Borough, and while residing in this locality he took an active part in organizing the obstetrical department of Guy's Hospital, and there laid the foundation of the flourishing school of midwifery which is now established, and which is one of the best of its kind in the kingdom. About the same period Dr. Lever obtained the degree of Doctor of Medicine in the University of Giessen, and in 1842 he was admitted a licentiate of the Royal College of Physicians of London.

Having previously held the post of physician's assistant to the Lying-in Charity, under Dr. Ashwell, he was appointed joint lecturer with Dr. Oldham, in the year 1842; and in the next year he and Dr. Oldham were appointed, conjointly, obstetric physicians and lecturers on midwifery, the obstetric department of the hospital having now become large and important.

In 1849 Dr. Lever and Dr. Oldham were admitted together upon the staff of the hospital, a position which had not previously been granted to any obstetric physician; and up to the period of Dr. Lever's death these two physicians acted together with an equal division of duties. During the first twenty years of the existence of the Lying-in Charity, no less than 22,498 cases were attended by the pupils under the superintendence of the obstetrical teachers.

Dr. Lever was in his usual health up to within a short

period of his death, and he was present at the meeting held for the formation of the Obstetrical Society of London, December 16th, 1858. Very soon after that meeting, however, he was seized with symptoms of very severe illness, for which he was attended by Dr. Addison. Pericarditis and anasarca both manifested themselves, and threatened the most serious consequences. Death took place quite suddenly on the 29th of December, 1858.

Dr. Lever's contributions to medical literature were not very numerous, but he published an essay on the 'Organic Diseases of the Uterus,' for which the Fothergillian Gold Medal had been awarded by the Medical Society of London, and he contributed to the 'Guy's Hospital Reports' a series of researches on the presence of albumen in the urine in cases of puerperal convulsions.

For the following memoir of the late Mr. Squibb I am indebted to Mr. W. Squire, of Orchard Street, himself a Fellow of this Society.

George James Squibb, Esq., surgeon, whose death occurred in January of last year, was the second son of Mr. Squibb, of Savile Row, and born about the year 1797. He commenced his professional instruction under the care of Dr. Kerrison, and prosecuted it still further by an attendance upon lectures on anatomy and surgery, and a somewhat more systematic study of medicine than at that time was required.

In 1820 Mr. Squibb obtained the apothecaries' licence, and became a member of the Apothecaries' Company; in 1821 he passed his examination as a member of the College of Surgeons. Little more than a year elapsed before he prepared to enter upon practice by joining Dr. Lemann, of No. 6, Orchard Street, Portman Square.

The activity and cheerfulness of character and kindliness of heart which distinguished Mr. Squibb soon became a passport to general favour as a medical practitioner. Dr. Lemann soon retired; the confidence of an extended connection was to be gained and maintained by a youthful

medical adviser; the residence of his predecessor became his home, and continued to be so for thirty years.

Amid the duties of a busy practice, the advance of science and the welfare of his profession were regarded with a lively interest. He afforded some contributions to the medical journals, and took an active part in the promotion of medical reform. Literature was made a relief to the more severe mental labour connected with his profession, and the results of it appeared in an essay relating to Dr. Johnson, first, it is believed, brought before the Royal Society of Literature, of which he was a member, and in the collection of a well-arranged series of engravings and illustrations appended to Boswell's life of Dr. Johnson. A history of London was similarly enriched, a valuable collection of medical portraits was formed, and some attention bestowed upon Egyptian antiquities.

In 1852 he was elected a fellow of the Royal College of Surgeons, and at the time of his decease held the office of president of the metropolitan branch of the British Medical Association.

In 1853, on the event of his second marriage, Mr. Squibb removed to Montagu Place, Bryanston Square, and still continued that activity and attention to his professional duties which had always distinguished him. His sympathising kindness and help to all, of whatever station, were not limited merely to professional aid, and his unvarying courtesy to his professional brethren was widely known and appreciated.

Enjoying till within a few weeks of his death the most robust health, and unacquainted with disease in himself, it was difficult to lay aside his accustomed activity and take that rest which the nature of his symptoms required; an effort to resume his duties while unfitted for exertion occasioned a relapse, which rapidly proved fatal.

I have now the sad duty to allude to the premature loss of a young and promising physician, whose career, which had promised to be so brilliant, has been cut short by dis-

ease, certainly aggravated, if not induced, by overtaxing his strength in the ardent pursuit of his profession; and here again I am indebted to the author of an excellent article on our lost associate in the 'Medical Times and Gazette' of July 9th, 1859.

The name of Samuel Griffith first appears as a medical student of King's College, London, at the commencement of the session 1843 and 1844. His assiduity in the dissecting-rooms secured his being chosen one of the prosectors of anatomy to Professor Partridge; but so soon as the preliminary subjects of his professional education were mastered, and the more practical ones entered on, he indicated a preference for the study of midwifery and the diseases of women and children. He became clinical clerk to Dr. Farre, the professor of midwifery, who had the charge of the out-patients, women and children; and he then made the best use of the opportunities for observation which his position afforded. He also acted as clinical clerk to Dr. Guy, the physician for out-patients; and subsequently was in-patient clinical clerk under Dr. Todd, who learnt to esteem his valuable qualities, and who, during his subsequent career, particularly when sickness overtook him, proved himself a most kind and ready friend.

Having become a licentiate of the Apothecaries' Company, and member of the College of Surgeons, he was appointed house-physician to King's College Hospital, and in that capacity, besides the arduous duties in the wards, had to lend his aid, whenever called upon, to any less experienced students in the mysteries of obstetrical practice.

He would work indefatigably by day in the wards, and, instead of courting the needed repose and sleep of night, seemed only too happy to find himself spending the midnight hours at the bedside of some poor woman in childbirth. Such exertions were incompatible with even his robust health and vigorous frame, and at this period he doubtless made the first inroads upon a sound constitution. Unwilling as he was, it became necessary for him to remit his labours and to recruit his overtaxed powers by a holiday.

At the completion of his hospital and college career he resided with his father, and became one of the surgeons to the Royal Maternity Charity; and soon after, having taken the M.B. degree at the University of London, he was elected physician-accoucheur to the Farringdon Dispensary.

He went to reside in Wellington Street, Southwark, and became assistant-accoucheur to Dr. Waller, at St. Thomas's Hospital, and a licentiate of the College of Physicians. He was chosen physician to St. Ann's and the Welsh School and to the Surrey Dispensary, and medical referee of the Star Life Assurance Office. He had likewise been appointed about this period one of the three physicians of the Royal Maternity Charity, and had the large central district assigned to him, at the same time receiving from the committee a valuable testimonial expressive of the very high sense which they entertained of the services he had previously rendered to that institution. Besides the active occupation of his public appointments, private practice began to increase, and in consequence he found it no longer possible to perform his duties at the Farringdon Dispensary. He therefore resigned this appointment, and had the gratification to receive from the committee of the institution a very handsome acknowledgment of his zeal and assiduity in the discharge of the duties of physician-accoucheur.

After holding the appointment at St. Thomas's for a year or two, he became coadjutor with Dr. Waller in the midwifery department at St. Thomas's Hospital, and was called upon to deliver lectures on practical midwifery.

His labour was excessive, without interruption, and in the winter of 1857 his overtaxed strength began to fail, of which he took little notice; but he was induced to see Dr. Todd, who, finding one of the lungs affected, ordered his immediate desistence from practice, and, after some preliminary treatment, his removal to Torquay. He remained at that town for two months, returned to London, and resumed practice with the same earnestness as before his illness, and with, alas, too little caution; for in the ensuing October he was attacked with severe hæmoptysis, which

again demanded his withdrawal from practice and his removal to Devon. In a few months his health became sufficiently recruited to allow of his return to London, but still it was as an invalid; the injury the lung had received still showed itself by the frequent short cough, rapid pulse and respiration. His hopes of the future, however, remained bright; withstanding the rude shocks his private practice had received, it greatly increased, and during the last winter he took the lease of a house in St. Thomas's Street, fitting and furnishing it in anticipation of future years of activity and success. But losing sight of his invalid condition, and acting as if his rude health and powers remained intact as of old, he plunged into practice with his usual ardour. Daily the practice seemed to grow, for he was now the principal consulting-physician in female diseases and obstetrical cases on the Surrey side of the metropolis; but in April last, having been summoned to a consultation at Greenwich late in the evening, he was exposed to a heavy rain. The fatal malady, which lay latent, not extinct, in his lungs was rekindled. Congestion of the lungs followed; he still, however, continued to perform his daily duty, but severe hæmoptysis returned, a few days reduced him to a state of great weakness, and though every care and treatment were lavished upon him, he made little progress towards amendment. He was able, however, to make the journey to Torquay, animated with the flattering hope that the climate of that place, which had served him so well before, would again restore him; but though at first it seemed to renovate his strength, his malady had too far advanced, exhaustion progressed, and, unexpectedly at the moment, issued in death on the 23d of June last.

Thus lived, and thus died, one who was literally respected and loved by all who knew him. A heartiness and genuineness of character, a desire to please and to oblige, a firmness and integrity of purpose, a love of truth, and the possession of sterling moral and religious principles brought him numerous friends, made him beloved in life and regretted in death.

Whilst writing the foregoing lines the intelligence has reached me of another loss which this Society has sustained, by the death of one of its most distinguished honorary Fellows, Dr. Montgomery, of Dublin, one whose brilliant talents, whose valuable additions to obstetric knowledge, and whose deservedly high repute, will ever render his name a shining light among us.

A friendship of many years with this distinguished and estimable man makes it difficult for me to trust myself to speak of him in those terms which my sincere regard would dictate. If the profoundness of his researches, the truth and correctness of the discoveries to which they led, and the practical value of his writings—especially that great monument of his genius, I mean his admirable work 'On the Signs and Symptoms of Pregnancy,'—inspire us with respect for the skilful, unwearied observer and highly gifted author, so also the simple manners and unaffected modesty of the man, his kind heart, sturdy truthfulness, and unvarying friendship, tell *me* that I have lost an old, a valued and much-honoured friend. In these qualities I have often been struck with the resemblance between him and another distinguished physician, I mean the late Dr. Prout; whose profound and scientific researches and their practical utility will, like those of Dr. Montgomery, command the respect and gratitude of future generations.

The 'Medical Times,' in a short but excellent eulogy on Dr. Montgomery, has quoted an expression from my friend, Dr. Arneth, of Vienna, which I must not omit here, viz., that "the name of Dr. Montgomery is known and honoured wherever midwifery is practised." There are indeed few, if any, names of the present generation which have tended to raise the fame and character of British midwifery so high as that of Dr. Montgomery has done. All honour and respect, then, to the memory of this excellent and distinguished physician. From the same journal we learn that he graduated as A.B. in 1822, and took the degrees of A.M. and M.B. in 1825. He did not take the degree of M.D. until 1852. He became licentiate of the King and Queen's

College of Physicians in 1825, and in 1829 he was elected a fellow of that body. He subsequently filled the office of president of the college. At an early period of his professional career Dr. Montgomery gave lectures on midwifery to large classes of pupils, at his house in Cuffe Street, Stephen's Green. To his exertions the foundation of the Professorship of Midwifery by the College of Physicians was mainly due, and he was himself the first elected to the chair he so ably filled during the lengthened period of thirty years.

Dr. Montgomery's contributions to medical and more particularly to obstetrical literature were numerous and varied; but it is on his classical work, 'On the Signs and Symptoms of Pregnancy,' and on his 'Observations on the Spontaneous Amputation of the Fœtal Limbs in Utero,' that Dr. Montgomery's lasting fame must mainly rest.

Dr. Montgomery was sixty-two years of age. His death, though not unexpected, was rather sudden; he had for some time suffered from excruciating pains in the chest and other symptoms of cardiac disease. He died on Wednesday, December 21st, 1859, at his house in Merrion Square, Dublin.

It would ill become me, gentlemen, to close this address without offering you my most hearty thanks for the flattering kindness which I have received from you during the ten meetings of the last year at which I have had the honour to preside; but it is difficult to express in appropriate terms and with sufficient warmth how grateful I feel to you.

To you, gentlemen, the members of the Council, and especially to you, Mr. Treasurer, are due my best thanks, not only for the kind consideration which I have on all occasions received from you, but also for your constant attendance at the Council meetings, and for the valuable advice and assistance which you have afforded me. It is no more than due to our excellent Secretaries, Dr. Graily Hewitt and Dr. Tanner, for me to state that the Society can

scarcely be aware of what an amount of work has been gone through by them, during the last fifteen months. In the early part of 1859 the arrangements for establishing the Society on a sure and safe basis; the drawing up of a code of laws, every clause of which has been subjected to the most careful revision; and in the later months of last year the necessary arrangements for printing our first volume of 'Transactions,' and many other matters, have required a large amount of time, thought, and labour. The success of the past year is their best reward. One most agreeable result of this Society has been to bring together a large number of medical men in agreeable and friendly intercourse, who would otherwise have been strangers to each other.

Long, then, may the Obstetrical Society of London live and flourish, and may each succeeding year bring fresh strength and honour to it.

AN

INTRA-UTERINE FIBRO-PLASTIC TUMOUR,

EXTENSIVELY ADHERENT,

REMOVED BY ENUCLEATION.

BY

J. HALL DAVIS, M.D.,

PHYSICIAN TO THE ROYAL MATERNITY CHARITY, AND PHYSICIAN-ACCOUCHEUR TO THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY.

Read Jan. 4th, 1860.

I was first called upon by the subject of this case, a lady, æt. 51, from Devonshire, September 29th, 1859. She had been a widow twelve months, after a marriage of thirteen years. She had only once been pregnant, namely, in the first year of her marriage, and then an early miscarriage followed, attended with flooding.

She was born of English parents in Madras, in 1808, and was sent to this country when in her ninth year. On the voyage she was seized with inflammation of the liver, was in great danger, and landed in this country prostrate and much emaciated. Having naturally a good constitution, she gradually recovered perfect health and remained well till 1843.

In 1843, that is, two years before her marriage, she had been out riding on horseback as was her custom; got heated, and took a chill. She had upon this difficulty in passing her urine, and required the catheter three or four times. In the same year attacks of uterine hæmorrhage presented themselves at other times than the periods; she also had inflammation of the liver, for which she was cupped in the

commencement over the hepatic region, and also bled from the arm. An abscess followed, which burst into the bowels, the matter escaping at the anus. The patient was thus reduced almost to a skeleton, and through excessive weakness she was unable to speak for three days; but in course of time she recovered her health and strength. Five years ago, she had pain in the left hypochondrium, with pyrexia, was then again bled by cupping, and also blistered, upon which the pain left her. The monthly flow has always been very great, but she has never suffered any pain in the back or elsewhere at those times. She menstruated regularly up to three months ago; she has had much leucorrhœal discharge, sometimes purulent, for nine years, and has had occasional attacks of flooding. She has now, and has had for ten years past, a gnawing sensation at the hypogastrium, and feels much inconvenience in the pelvic region when riding in a carriage; and has, owing to frequent inability to empty her bladder, had repeated occasion for the catheter, which she has learned to employ herself. I may here state that her brother is in the Indian medical service, and that her husband was for forty years in the same service. The urine is of a light-amber colour, not albuminous, and presents otherwise, on examination, healthy characters. The patient had never suspected the existence of any uterine malady. No vaginal examination had ever been made till she called upon me.

She is a little above the middle height for a woman; of a spare habit of body; complexion slightly florid; lips pale. I am informed that her habits are very active, and that she spends much of her time in her garden, in attending to her plants.

Suspecting disease within the pelvis, I examined over the abdomen first, and secondly per vaginam. I found a distended bladder, reaching to midway between the pubes and umbilicus, and drew off, much to the patient's surprise, between two and three pints of urine. The taxis then detected a hard, circumscribed body, which I concluded to be the uterus, extending symmetrically above the pubes. On now

examining per vaginam, I found the uterus enlarged, the ordinary projecting vaginal portion of the cervix obliterated, owing to the development which the uterus had passed through for the accommodation of a growing tumour. The orifice of the uterus was open to the size of a half-crown, and within it I felt a roundish tumour, smooth, and fibro-fleshy to the touch, if the expression may be used. I found this growth adherent to the anterior walling of the uterus, also to the right walling down to the margin of the orifice. Likewise to the left walling to within an inch of the edge of the uterine orifice. Posteriorly the tumour was quite free, as high as the fundus of the uterus, which the uterine sound informed me was distant from the uterine orifice between four and five inches, in other words, that was the depth of the cavity of the uterus. I could not pass the sound from behind round the tumour at the sides, it being there stopped by the lateral adhesions.

I informed my patient of the nature of her case, but at the same time encouraged her with good hopes of curing her condition by the removal of the tumour. A few days later an attack of flooding occurred, after recovery from which my patient repaired to her home in Devonshire, where having settled some matters, she returned to London about the 25th of October, and placed herself under my care. Soon after her arrival another flooding occurred, from which, however, she was entirely free before the end of the month.

November 1st.—Having secured my patient a good nurse, I commenced operative proceedings on the tumour.

It occurred to me that, if I could get my finger through and within the reflection of mucous membrane passing from the cervix to the inferior surface of the tumour, I might succeed in gradually detaching or enucleating the tumour from below upwards. I proceeded first in front, and detached the tumour, as indicated in the drawing, up to a line, beyond which I could carry the separation no further. I then detached the tumour laterally, and here a little higher than in front. My impression was that at least half, if not

two thirds, of the growth was now free and unattached. I now desisted, fearing to do mischief, the remaining attachment being very firm.

Very little hæmorrhage attended or followed these proceedings. I washed out the uterus with tepid water. The patient passed a good night, without pain.

November 2d.—I resumed the treatment, determining, if possible, to apply the écraseur, and so to remove the separated portion of the tumour at once.

Chloroform was first exhibited by Mr. Potter. The écraseur was found, on trial, impossible of adjustment; I therefore resorted to the whipcord ligature, which I easily carried round the tumour at the upper limit of its detached portion.

9 p.m.—Patient suffers from sickness, probably due to the chloroform. This was subdued by repeated sucking of ice. Pulse 83; urine eight ounces, not high-coloured, drawn off by catheter; no pain.

3d, 8 a.m.—Pulse 84. Passed a tolerably good night; drew off eight ounces of urine; tightened the ligature; skin natural.

9 p.m.—Pulse 84, weak, has had good sleep; urine drawn off; complains of dragging pain in right ovarian region; I did not therefore tighten the ligature further; ordered a linseed poultice, with laudanum, to be applied to the seat of pain. Diet, as heretofore, beef-tea. Port wine and water was also given, the pulse being weak, and brandy being most distasteful to the patient.

4th, 8 a.m.—The laudanum poultice entirely removed the pain. Patient has passed a good night; urine drawn off, not high-coloured. Skin natural, pulse 88. The discharge not yet offensive, washed out vagina and uterus with warm water. Tightened the ligature without causing distress. Solution of permanganate of potash two drachms, to a pint and a half of water, to be used as a disinfectant to wash out the uterus and vagina.

5th, 8·30 a.m.—Patient has passed a restless night. Pulse 106, skin hot, but abdomen bears pressure without

suffering, and pain otherwise not complained of. Urine drawn off, high-coloured; discharge very offensive. These symptoms made me anxious about my patient, and desirous to get away the tumour as quickly as possible, fearing the concurrence of pyæmia from absorption of putrescent matters into the circulating blood. Finding it impossible to manipulate, for want of space, with Gooch's canula in application, I removed it with the ligature, and washed out the uterus and vagina freely with the permanganate of potash lotion.

Three hours later in the day, having paid some urgent visits in the interim, I returned to my patient, determined, if at all practicable, to remove the whole, or at least a considerable part, of the tumour. The discharge from the uterus had become again offensive. I washed the cavity of the uterus out therefore with the above lotion. I next guided upon my index-finger a pair of vulsellum or Museaux's forceps; with which I got a firm purchase upon the lower part of the tumour, and gradually dragged down the mass, so that the most dependent part (indeed all below the ligature) which was now putrid, flaccid, and very compressible, passed into the vagina. Small portions broke away from time to time, upon which I got a firmer hold higher up. I cut off some portions, and proceeding with my traction, I at length brought the putrid part, which formed nearly two thirds of the tumour, through the os externum. I now obtained a glimpse of the upper, undecomposed part of the growth. During this time firm pressure was being applied over the fundus of the uterus above the pubes.

The patient now complained much of the traction. I therefore examined and satisfied myself that I was not inverting the uterus. This organ had been brought altogether lower into the pelvis, and after the larger part of the growth had appeared externally the uterus had undergone some contraction of its muscular fibres and of its bulk. I proceeded with my traction, getting a fresh hold higher up, and now had the yet extensive attachment of the tumour under my command, when, by a combination of traction and twisting of the tumour close to its adhesion, I succeeded at

length in brushing it away, as it were, cleanly from its connexion to the uterus, and so delivered the patient of her unnatural offspring.

I now washed out the uterus again with the same lotion as before; scarcely any blood came away. Some port wine and water were given during and after the operation, which, owing to the slowness of proceedings that I judged advisable, occupied nearly half an hour. I gave no opiates by the mouth, as they always disagree with the patient when so taken. I had a laudanum poultice of linseed meal applied to the hypogastric and sacral regions, where she complained of pain.

November 6th.—Patient has passed a good night. Pulse 98. Discharge still putrescent. The above lotion to be injected into the uterus three times a day. This I undertook myself. Urine drawn off, and again at night. The patient says she feels greatly relieved by the uterine injections from uneasy feelings; doubtless the putrescent discharge causes much local irritation from its pungency. One of the injections to-day brought away a large, offensive, black clot of blood.

7th.—Pulse 90. Slept tolerably well, bad taste in mouth. An enema of warm water, with a little soap dissolved in it, administered, which acted freely, and gave great relief. Castor oil was given on the following day.

9th.—The case has gone on most satisfactorily. Pulse 84. The discharge, under the use of the injections, has gradually lost its offensiveness, and is almost colourless. I had the patient wheeled on the sofa into the next room.

12th.—Appetite better than it has been for months. Patient is now able to walk about her room without inconvenience.

At the end of a fortnight from the application of the ligature my patient was able to take a drive, and at the end of three weeks she was well enough to return to Devonshire, resting one night, as I advised, at Bath.

The operation of the ligature on the growth had the effect of facilitating my subsequent proceedings in removing the

tumour, and appeared, by weakening its adhesion—at first so firm as to resist all prudent efforts to break it down—to make the final separation a matter of no great difficulty.

On examination of the tumour, the upper part of it presented a perfectly fresh appearance; below that was the groove of ulceration formed by the ligature, beneath which was seen the putrescent portion, some of which has since separated in the waters in which it was necessary to soak the tumour to deprive it of its contained blood.

I submitted the above tumour to my friend, Dr. Jenner, for his opinion upon its pathological characters. On microscopic examination, he found it to be composed of fibrous tissue, with a very large intermixture of fusiform, nucleated cells, but no cells of the kind supposed to indicate a malignant character in the growth. It therefore belongs to the order of fibro-plastic tumours of Lebert. The outer coating of the tumour is composed of cellular tissue, with fine vessels. The lower part was covered by a reflection of mucous membrane. The mass required to be soaked in many waters before it parted with its contained blood; hence it must be inferred that it was highly vascular, a point in which it differed from ordinary fibrous tumours.

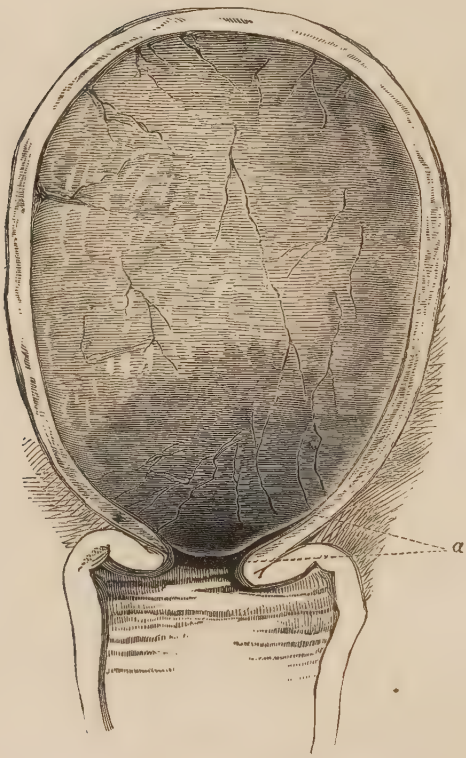
The accompanying drawings exhibit views of the tumour *in situ.*

A. Front view.

B. Lateral view from the left side.

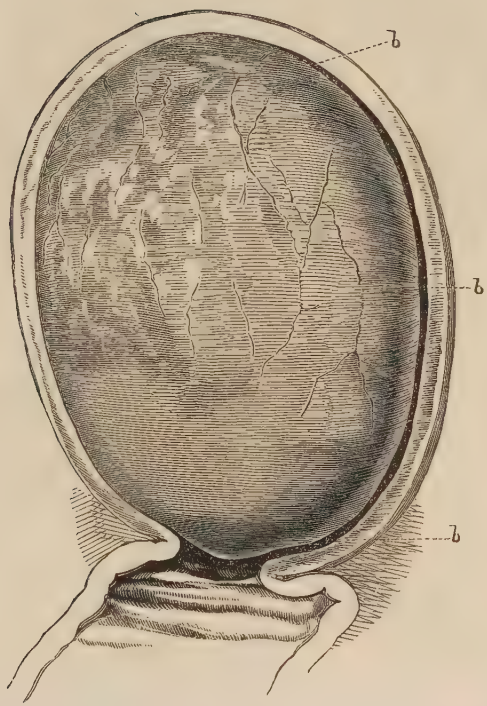
C. Front view; Gooch's canula and ligature applied at the upper limit of the portion of the tumour, which I had previously separated.

A



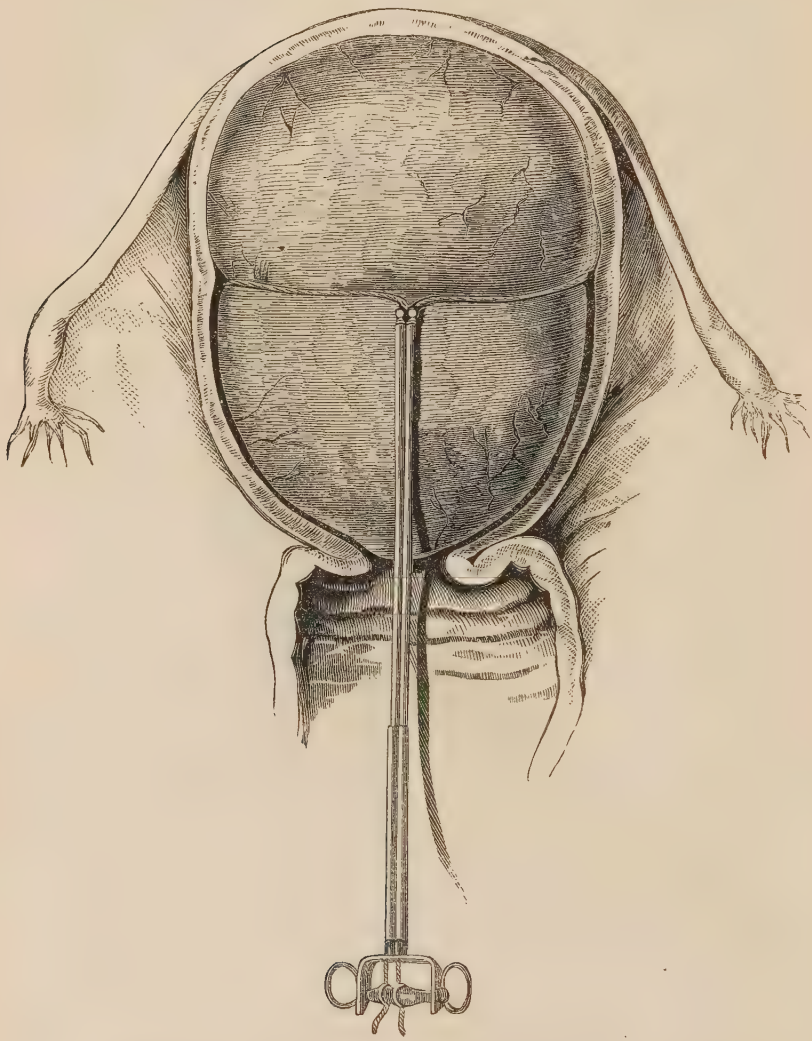
A. Anterior view of tumour in the uterus, adherent right laterally, and also left laterally, except at *a*.

B



B. Lateral view of tumour from left side, adherent anteriorly; free posteriorly, *b*, *b*, *b*.

C



c. Anterior view of tumour, showing application of Gooch's canula, the ligature adjusted at upper limit of the separated portion of the growth. This ligature was removed on the fifth day, symptoms of blood poisoning appearing. The tumour was then extracted in the manner stated in the history of the case, with a successful result.

CASE OF LARGE
CONGENITAL ENCEPHALOID TUMOUR,
NOT IMPEDING DELIVERY.

BY

SPENCER WELLS, F.R.C.S.,

SURGEON TO THE SAMARITAN HOSPITAL, ETC.

Read Jan. 4th, 1860.

The drawing representing this tumour is taken from a plaster cast made by Mr. Tuson after the death of the child.

Dr. Clarke, of Penton Street, was engaged to attend the mother, a lady who had had several children previously, six of them still alive and healthy. She herself is very healthy, but her mother was said to have died of cancer of the uterus. Labour came on at the period expected, and went on so rapidly that the child was born before Dr. Clarke arrived, although he lived very near and went as soon as he was sent for. Mr. Spencer Wells was consulted soon after the birth as to the possibility of removing the tumour. Afterwards, Dr. Priestley and Dr. Savage met Mr. Wells and Dr. Clarke in consultation, and it was decided to make an exploratory puncture at the lowest part. This was done, and about three ounces of serum evacuated. The child only lived a few days afterwards, and died three weeks after birth. The diagnosis made during life was, that it was either an encephaloid tumour or an included fœtus. On dissection, the former supposition proved to be correct. It proved to be an encysted mass of encephaloid matter, separated by dissepiments into imperfect cysts or areolar spaces, chiefly attached to the lower jaw and the left side of the larynx, and receiving large blood-vessels both from the carotid and axillary arteries. The cranium was quite perfect, and the brain and dura mater normal.

ON THE ACTION OF BELLADONNA

UPON THE

MAMMARY GLANDS.

BY

RICHARD MARLEY, M.R.C.S., L.A.S.,

BROMYARD, HEREFORDSHIRE.

Read Feb. 1st, 1860.

My object in this paper is to draw attention to a therapeutical agent, whose peculiar action in certain cases is not so extensively known and generally practised as its merit and importance deserve. I allude to the action of belladonna upon the actively secreting mammary glands. It is now nearly thirty years ago (1834) since there appeared in the 'Dublin Medical Journal' an excellent article by Dr. Scham, "On the Action of Belladonna upon the Mammary Secretion." Since that time several contributions have appeared in the medical journals, by various writers, describing the action of this drug in arresting mammary abscess and preventing the secretion of milk.

In the 'Lancet,' as recently as September, 1858, there was a short and very practical contribution from Dr. Kingsford, and in the same journal Mr. Field, an American, published his Trans-Atlantic experience of the use of the drug.

But, notwithstanding the opinions expressed by these gentlemen, backed by recorded instances of the successful employment of this remedy, still the use of belladonna as an agent to arrest mammary abscess is by no means general.

Having an extensive midwifery practice, I, in common with most obstetricians, have often been obliged to see and allow the whole processes of mammary inflammation and

suppuration to run their course, being unable to check or resist their progress. Thus, as belladonna is reputed to possess the property of dispersing the milk with certainty and rapidity, without inducing nausea, fever, or other disagreeable effects, I was determined to give it a fair trial. This I have done; and in upwards of forty cases wherein it was resorted to, with but two or three exceptions, success was the result. These exceptions were caused either by the patient herself improperly and carelessly applying it, or by her obstinately persisting in a full and stimulating diet. For the convenience of those not accustomed to its employment, directions as to the best method of applying the extract will be found at the end of this communication.

Belladonna, through its relaxing power over certain fibres, seems to act by dilating the openings of the lactiferous ducts, and thus allows of a freer exit to the milk, which might otherwise remain, accumulate, become decomposed, act as a foreign and irritant body, and thus be the active cause of that too common form of abscess, the mammary, with its accompanying accelerated circulation, fever, and delirium.

In one instance only did I notice any affection of the iris.

A lady, recently confined of a stillborn child, complained, after applying the extract, of a dull, slight pain in the left eye, accompanied by a partial loss or indistinctness of vision. Upon examination, the iris was found dilated to its fullest extent. This dilatation was traced to direct application; *not*, therefore, a constitutional effect from absorption. Indeed, had such been the case, in all probability both pupils would have been affected in a similar manner. No ill consequences attended.

I generally keep this peculiar action of belladonna from the patient's knowledge, for there is frequently some resistance to its application, based upon its unsightly appearance, its disagreeable smell, and a great faith in the rubbing in of goose-oil and brandy.

I content myself, therefore, with a caution against its *extreme smarting* effects, if introduced into the eye, a

caution usually sufficient. I have applied it under all the circumstances most likely to produce mammary abscess, as the subjoined list will show, and with a success that enables me heartily to recommend its *early* application.

After craniotomy	3 cases.
Stillborn	7 „
During suckling	10 „
Death of child after suckling	10 „
Defective nipple	4 „
During weaning	3 „
Single women, who could not or would not suckle .	7 „
	44 „

In one unsuccessful case, in which I delivered by turning, the patient neglected applying it, and she suffered severely from mammary abscess. In the same woman, in a subsequent labour, when I was obliged to resort to craniotomy, the success of the belladonna was perfect. In two it failed from greediness in eating and drinking.

I may very properly advert here to another quality of belladonna, owing to which I have employed it for some time with marked success.

In all large, suppurating inflammations near the surface, the application of the extract of belladonna is attended with an almost immediate alleviation of the painful shoots and throbbing. The process of suppuration may go on, but the pain, frequently so distressing and agonising, is checked. Pain in these inflammatory cases is caused by an increased degree of nervous sensibility in the part, either from the nerve participating in the inflammation or from its nervous filaments being pressed upon and stretched. Belladonna, no doubt, acts by relaxing the parts, and thus removes that urgent pressure so painful in its results.

Best method of applying Belladonna.

1. Be sure your extract of belladonna is genuine. It may be adulterated with the cheaper and useless extracts of conium and hyoscyamus, both of which it resembles.

2. *Smear* it on, *don't rub it in,* as the friction necessarily used by rubbing in is of itself almost sufficient to produce the dreaded mischief in an already irritable and inflammatory gland.

3. Apply it night and morning, or three times a day, according to the urgency of the case and symptoms.

4. In summer the extract may be applied pure or mixed with a small portion of glycerine. In the winter, when the extract is firm and unyielding, it requires to be well rubbed up with glycerine, in the proportion of two or three drachms of the latter to one ounce of the former. This is essential to render it of a consistency admitting of easy application. For fanciful ladies you may add a few drops of essence of amygdale.

5. Keep the bosom supported by a broad handkerchief; don't let it hang down.

6. Keep the bowels well opened with salines, and let the diet be spare.

7. Caution about its *smarting,* if any gets into the eye; and also caution thoroughly that the infant gets none of it in his mouth, as it frequently happens that the baby may be sucking the healthy bosom.

8, and lastly. Lose no time. In any case where milk-abscess is likely to occur, apply at *once* the remedy; do not wait to try and cure, but anticipate evil by preventing its occurrence. The whole gland, including the areola round the nipple, should be included in the application.

DESCRIPTION

OF A

LARGE FIBROUS TUMOUR OF THE WOMB.

BY

HENRY G. TIMES, M.R.C.S., L.M.

Read Feb. 1st, 1860.

Emma B—, æt. 53, sent to me on Sunday, the 1st of January, requesting my attendance, as she was suffering from ischuria. Upon visiting her, I found her lying on her back in bed, complaining of great pain from her inability to pass her water. I relieved her of her most urgent symptoms by the introduction of the catheter; drawing off a pint of thick urine. Upon examination I found the whole abdomen very much distended from peritonitis, tympanic upon percussion, and a large tumour lying in the left iliac region. I learnt from her the following history.

She said she had never been married; that the catamenia had been regular, but had ceased five years back; that she had enjoyed tolerable health until about nine months previously, when she first noticed a slight swelling at the bottom of the abdomen, but as it was attended with very little pain she sought no advice for it. It was not until the last month that she had been under medical treatment at a dispensary, but a week having elapsed since the doctor had visited her, her friends became anxious, and sent for assistance in the neighbourhood. I ordered palliative treatment, which somewhat relieved her, but the inability to keep anything on her stomach, from the incessant vomiting, so reduced her that she gradually sank, and expired on the Tuesday following. Forty-eight hours after, I made a post-mortem examination in the presence of my friend, Dr. Priestley, and upon opening the abdomen we found the whole of the left iliac fossa occupied by a large, kidney-shaped, fibrous tumour,

which was covered with abundant evidence of peritoneal inflammation. The tumour, with uterus and appendages, was carefully removed, and upon after-examination I found it to measure eleven inches from end to end, and eighteen inches in circumference, and the weight of the whole was ten pounds and a quarter; there was much difficulty in dividing it, from the large quantity of calcareous deposit. I also found dropsy of the right ovary; but what I wish particularly to draw the attention of the Society to is, that the tumour had grown from and *out* of the womb, and, owing to its excessive weight, had completely disconnected the cervix from the body of the uterus; this is proved by passing a probe through the os tincæ, when it will be found to enter a cul-de-sac, about an inch and a half deep. I have since been informed that a somewhat similar condition of parts had been noticed by Mr. J. Baker Brown after the removal of a large ovarian tumour, but it certainly does appear singular that such an extensive disorganization should have taken place during life, with so little bodily pain or constitutional disturbance.

Notes of the Minute Anatomy and Structure of the Morbid Specimen exhibited by Mr. Times *to the Society, February,* 1860.

The large tumour attached to the side of the uterus is uterine in its origin. The form is an irregular oblong, measuring eleven inches in length, and in circumference about equal to a child's head at birth; the weight, ten pounds and a quarter. It is united by a short, thick pedicle to the upper angle of the left side of the uterus, just in front of the insertion of the Fallopian tube. The surface is covered by peritoneum, and is irregular, from the presence of numerous nodular projections. To the touch it has a feeling of almost bony hardness, and a section is made with much difficulty. The structure consists of uterine fibres and

white, fibrous tissue, arranged in the concentric manner commonly observed in uterine fibrous tumours, a large proportion, however, of calcareous matter being deposited among the laminæ. The pedicle is composed of uterine tissue, which spreads out in bundles and embraces the sides of the tumour. The dragging effect on the uterus during the growth of the tumour has been peculiar. Measured from os to fundus, the length of the uterus is upwards of six inches, but a probe introduced into the os is arrested at the distance of an inch from the orifice, the cervical canal being occluded there. On laying open the uterus, its cavity, which is of the usual form and dimensions, is found to be widely separated from the cervix, the body of the uterus being pulled so far upwards that the inferior angle of the uterine cavity is fully two inches apart from the occlusion in the cervical canal. No apertures can be detected in the uterine cavity, the opening of the Fallopian tubes and the one towards the cervix being all alike occluded. The uterine canal, in fact, instead of being continuous from os to fundus, is divided by occlusions into three compartments, each being lined by mucous membrane; the first terminates at the upper part of the cervix, the second consists of the uterine cavity proper, and the third lies between the other two, being contained in the thinned and stretched uterine tissue which unites the upper with the lower segments of the uterus.

The Fallopian tubes are both six inches in length; the right tube is dilated and sacculated, and capable of holding two or three ounces of fluid. It is occluded at about an inch from its outer extremity and also at the uterine end. The left tube is pervious for three inches at its outer extremity, and of normal calibre; beyond this its canal is obliterated.

Both ovaries are present, but have undergone a curious change of form, and are scarcely recognisable. The length of each ovary is three inches, the form is round and cord-like, rather resembling a ligament than the usual appearance of the organ; ovarian structure, however, is distinctly recognisable in both.

ON

MIDWIFERY IN THE EAST.

BY

J. JACKSON, M.D.

COMMUNICATED BY DR. METCALFE BABINGTON.

Read Feb. 1st, 1860.

CONSIDERING how fully the great principle of division of labour has latterly been recognised, and acted upon, in all the arts and sciences (a principle which, by concentrating the faculties of individuals on some one department of knowledge, effects a rapid and prodigious increase in the aggregate of human acquisitions) it was naturally enough to be expected that the peculiarly important subject of midwifery, and the diseases of women and children, should be made the especial and exclusive study of individuals, or of some distinct society whose inquiries should be solely directed to these branches of our profession.

I hail, therefore, with great satisfaction the establishment of this excellent association, and every one, indeed, who sympathises with his fellow-creatures, and is made acquainted with its main objects, must feel the same interest in its progress and success.

At the commencement of such a society, and before the intimate details for perfecting any doubtful point in physiology, or improving any plan of practice, have been entered upon, perhaps no objection would be made to a few remarks on the subject of "Midwifery, as it is Practised in the East, on both the European and Native Patient; with a brief sketch of some of the Diseases to which both Women and Infants are there liable."

It might be imagined that there are some peculiar difficulties induced by the earlier age at which girls marry in that country. Hindoo girls, of respectable parentage, usually marry between eight and ten years of age, to lads a few years older than themselves; and although they do not cohabit with their husbands at that time, yet after the ceremony is over, which is commonly a most expensive one (frequently entailing much distress and sometimes ruin), they pass part of the time at the house of the husband's parents and part at their own, care being taken that the first catamenial period should happen at the house of the husband; otherwise the father of the girl would be considered to have incurred some sin, and the girl also might be degraded. About the time of the catamenial period, which in the native girl may be about twelve years of age (in the European girl thirteen), the husband and wife come together; and it has happened at this early age amongst the Mohammedans, with whom the husband is much older, that most severe injury and even death has resulted from cohabitation.

Instances are unknown of any Hindoo woman marrying after the age of thirty, and late marriages are uncommon amongst the Europeans in the East.

The relaxing character of the climate and the looser fibre it engenders seem to prevent such unusual occurrences as above noted often taking place, as well as those lingering and tedious labours which are of such frequent occurrence in cold climates. These are never to be met with, except in the case of some early, undeveloped pelvis, and in a few instances of obesity. On one occasion it has been reported to me that great delay was experienced from a cicatrized state of the os tincæ, when the uterus and its contents were said to have been protruded beyond the vagina, and delivery took place extra-vaginam.

The first months of arrival for the young European girl in India are of more importance to her after-health than they are for the youth who comes out as a member of the Government service, or to seek his fortune as a merchant. During the period of shipboard in a lengthened sea voyage,

unless under judicious care, the young girl has, perhaps, paid no regard to her health during the usual monthly periods. Moreover, it frequently happens that after the first period is over on board ship there may be no return of the discharge, and she will arrive in India in a highly plethoric state, with flushed face, and become an immediate victim to the irritating and venomous bites of the mosquitoes, which torment her and create a series of ulcers of the most troublesome character; and possibly until she has had an attack of fever, and undergone the discipline of free purgatives and cooling medicine, there will be no relief. It may not be until some months have passed, and the natural period has returned, that she can be considered to be restored to health. Sometimes it happens during this period that the young European girl is obliged to make a long journey of 1000 or 1200 miles to the upper provinces; or she may have come out to India engaged to be married, and thus she enters upon her new life with her system in this deranged condition.

If the young girl remain at the presidency and is married, within a short period her medical attendant may be called in for consultation respecting her state, and a calculation may have to be made as to the time of her confinement and the engagement of the nurse.

It may be supposed that all will go on well, and that with the exception of some mild aperient, nothing will be needed until the labour is at hand; the medical attendant may be the first sent for, and his carriage not unfrequently is dispatched for the nurse. The labour generally lasts but a few hours, and may be completed before the sixth hour is over. No opiate or other medicine is administered; but there is an old-established custom which succeeds very well, and the office of the nurse is to attend to it, namely, to apply by means of friction warm anodyne liniment to the abdomen twice during the day, and to bandage the body firmly afterwards with a binder. A dose of castor oil is given to the baby; and this, perhaps with an occasional dose of the same useful medicine to the mother, is all that is

requisite. The patient is kept in the recumbent posture, in or on the bed, until the tenth or twelfth day, and not allowed to put her foot to the ground until after that time. It will, however, happen that the patient occasionally considers herself so well and strong that she insists on getting up and standing, and thus either produces prolapsus or suffers in some other way for her rashness. Indeed, much of the illness of married women arises from the circumstance of their getting up too soon after childbirth.

Generally, during the labour a bandage, formed by a long sheet, is placed round the body, and tightened from time to time, as the uterus contracts and the fœtus is being expelled, and thus the placenta is but rarely retained, but comes away in a few minutes after the child. A firm bandage is then fixed, and gentle pressure by the hand is made.

Two accidents occur sometimes during parturition amongst the European women who have been long resident in India and have borne several children: one being retention of the placenta from the imperfect contraction of the uterus, giving rise to hour-glass contraction and flooding; and the other, hæmorrhage after delivery, from a relaxed and weakened state of the walls of the uterus. I have found this latter to occur more frequently after the use of chloroform. The introduction of the hand for the removal of the placenta is requisite in the former case, with the use of ergot; and in the latter, the application of iced water from a height, so as to give a shock to the system, or even the introduction of ice itself into the vagina. But after this plan has only partially succeeded, the most perfect contraction has been induced by a mustard emetic. During the very hot weather, and sometimes during the cooler months, about the third day, the infant is liable to have trismus, which, when it has once set in, invariably proves fatal. Slight stiffness about the mouth shows itself on the morning of the third day; this increases with inability to take the breast and to swallow; tetanic symptoms set in, and death follows about the forty-eighth hour from the commencement of the seizure. The Eu-

ropean nurses are all well alive to the premonitory symptoms of this fatal disease, and the slightest stiffness about the lips or difficulty in sucking is watched with much anxiety.

European children, for the most part, thrive pretty well for the first few months, until the period of dentition arrives; and then, from the increased irritability induced by the climate, especially in some peculiar constitutions, every tooth has to be watched and free lancing of the gums to be made. The frequent necessity of employing native nurses, who, on the whole, are very good, and the irritating effects of their milk during the time of the catamenia in the hot weather, has, in several instances within my knowledge, induced an attack of convulsions, which has been more or less continuous for several days, and even weeks, in a mild form, and has established a habit of irritability that has lasted during the whole period of dentition. Convulsions coming on with the first teeth are not unusual; but the first double tooth is a more frequent cause for the attack, and in all such cases, if there be heat of head, and this be allowed for six hours to remain unattended to, or is unrelieved by brisk purgatives, warm bath, or leeching, there will be much cause for apprehension.

Uterine affections, as is well known, are not unfrequent amongst the European females in the East, and it has appeared to me that cancer of that organ, as well as of the mammæ, are less rare than is commonly supposed. Neither are the native women of the country exempt from these affections; and a more rapid progress of the disease is, for the most part, the case after operation than in this country.

The ready communication which now exists between England and India affords an opportunity for the more wealthy European female to return home, and thus prevent diseases of this nature, except in rare cases, being submitted for operation.

I may here remark a singular contrast in the character of the illnesses not unusual in the pregnant woman of the East, compared with her sister in the same condition in Europe, namely, in the frequent concurrence of diarrhœa

with the early period of utero gestation, and its continuance for some time after, even until quickening has occurred; also in the accompaniment, not unfrequently, of dysentery, both in the young and older resident; this latter disease occasionally proving fatal and inducing premature labour, or the mother, in other cases, continuing up to her full period, giving birth to her child, and then expiring within a few days.

There are some constitutions in which every child-bearing period is attended with dysentery, and I have known a mother on three separate occasions obliged to seek a better climate and to quit India, having had previously a miscarriage from the same cause, and nearly died.

When death occurs in the parturient woman suffering from dysentery, the post-mortem appearances will usually show that the rectum is the part most seriously affected with ulceration in the earlier stages of pregnancy. But when utero gestation has advanced to its full period, and death has resulted after the birth of the child, or miscarriage, the cæcum, as well as the sigmoid flexure, will be involved in ulceration and sloughing.

Irritability of the stomach and incessant vomiting are to be met with in India, during pregnancy, as in this country, and they there produce a state of extreme exhaustion, and in two instances that I have become acquainted with death was the result. In one of these cases there was such repeated denial of the possibility of conception having taken place, by both wife and husband, that a post-mortem examination was demanded, since every remedy had failed to procure relief.

The stomach was found to be healthy; no ulceration, or even redness. The intestines healthy, and the liver free from disease. The uterus was thickened from the early stage of becoming gravid, and increased in size; a detached coagulum was found on its inner surface; and an embryo fœtus, between two and three months, with the appendages, in a perfectly healthy condition.

There is one other peculiarity to be met with, namely, in

the absence of any relief to phthisical symptoms on the supervention of pregnancy; indeed, the distressing symptoms are for the most part increased, especially if the lungs be far advanced in disease. By the ascent of the diaphragm the capacity of the chest is lessened, whilst the diluted state of the atmosphere, from the high temperature, seems unable properly to decarbonize the blood, at the same time it exhausts the muscular power and renders the heart's action feeble, and I have invariably found all phthisical patients to become worse during the period of pregnancy. Such a condition is contrary to what is observed in this country.

In regard to the native woman, the mode of conducting the process of parturition is simple enough amongst the poorer class, and it is astonishing how quickly they recover from the effects of the labour, being able to go about their household work on the third day. With the higher class of native women, where caste prevails, the poor creature is considered an outcast at this particular time; and instead of having every tenderness and affection lavished upon her, as in this country, she is placed during the pangs of labour in the meanest hovel in the yard, as an unclean creature, or she is put into a matted shed in a lower verandah of the house, where, lying upon the floor, she is exposed to the heated fumes of wood and charcoal fires, which induce a degree of stupefaction and anæsthesia; and thus, in their way, the Hindoos would seem to have discovered a plan which for ages has been in use before ether or chloroform, for a similar purpose, was found out. This process goes on during the whole period of labour; the temperature of the room is greatly raised, and it is filled with smoke; and were it not that there is free ventilation through the interstices of the matted walls and roof, the patient, as well as attendants, would run the risk of being poisoned.

At the moment of delivery the woman is placed upon her back, her legs outstretched, and the midwife, seated on the ground in front, continually applies oil to the vagina and soft parts with her hand. At the time of protrusion of the

head she places her feet at the nates and perinæum, and bending over, with her hands she supports the vertex and steadies the entrance of the head into the world.

At the time of delivery a firm cloth is tightened over the abdomen whilst the afterbirth is coming away. Stimulating warm powders, containing cloves, pepper, ginger, are administered, and the room kept warm for some few days. But she is considered impure for many days, according to the caste she has. A Brahminian woman is considered unclean for twenty days, other castes require twenty-eight days. The old Jewish custom required forty days for the period of purification.

There would appear to be rather more irritability in the native compared with the European female, as I have seen cases of tetanus occurring in them during the catamenial period, and proving fatal, which I have never known to happen in the European; although I have seen one case of fatal tetanus take place in a healthy European woman on the third day after the birth of a healthy child, during the natural performance of the functions of the uterus.

The Hindoo woman is, for the most part, a pleasant, gentle creature, very fond of her children, and very grateful for anything that is done for them, or for herself, which she testifies in such a manner as the state of subjection in which she lives will allow.

She always remains respectfully covered before a third person in the presence of her husband. It is incorrect, however, to suppose that they possess no power or influence over their husbands, for I believe that hen-pecked husbands are phenomena as common amongst the Bengalees as amongst Europeans.

Hindoo women are liable to diseases as much as Europeans, both in the uterus, ovaries, and mammæ, and hysteria is an occurrence by no means unfrequent.

It is rarely that the aid of the European obstetric is demanded for the native female. The latter marry, however, so young, and at times there is such a disproportion in size

between the sexes, especially in the Mussulman population, that in such ill-matched unions there is delay in the delivery of the child, and the aid of the forceps may be required; but this is very rare. The Hindoo girl is in most cases married to a youth, as I have before mentioned, of her own age, at any rate not exceeding it beyond two or four years. (In a social point of view, it is easy to see the bad consequences of such early unions, and how destructive it is to the education of the Hindoo youth.) But where a suitable match can *not* be obtained, or the expenses attendant upon it are great, the parents, rather than suffer the disgrace of having their girl unmarried, will marry her to a Coolin Brahmin, who may have twenty other wives, and who stalks about the country, verifying the description of Homer's hero, who went through the pastures as a stalled horse amongst the mares.

Occasionally the native midwives in India, as elsewhere, make use of violence, and I have known the head of the infant to be separated from the body, or the body placed in such position that the aid of the European surgeon has been required, such as when the arm has been firmly drawn out through the vagina. One case, from a trustworthy authority, was related to me, where the uterus was entirely inverted, and the midwife removed the whole organ by dividing the parts with a knife. I have seen myself such cicatrization to have been caused as to have closed entirely the passage of the vagina, and thus prevented the escape of the catamenial discharge, which had been retained between the mouth of the uterus and the closed vagina. This case was brought to my notice by the husband, who stated that his wife had been delivered, after a hard labour, nearly three years before. A crucial incision was made, when two quarts of a treacle-like secretion poured forth, which had been pent up, and produced a distended state of the abdomen that had been considered by the native practitioner, before I had examined the case, to be one of dropsy, and as such had been under treatment some time. I have seen

closure of the vagina in a young girl giving rise to a somewhat similar condition.

Where infanticide is of such frequent occurrence as was formerly the case in India, and abortion so often produced, the native women, as might be supposed, understand thoroughly the means of accomplishing the end in view; but not unfrequently they go beyond their purpose and destroy the life of both mother and child, and thus become subjects for a police inquiry; and the records there afford numerous instances of these bad practices, where, after the failure of the internal remedies which they have had recourse to, they have introduced a portion of wood, generally of a particular kind (in their native language, the *lall chittra*), which they consider to be of peculiar efficacy in such cases; and instead of passing it through the os tincæ and thereby rupturing the membranes, the body of the uterus has been penetrated, and inflammation or sudden death has been the consequence.

The natives of India are now well aware of the relief afforded by chloroform in destroying pain, and are never willing to submit to any operation without its application. I have seen it administered many hundred times, without one fatal result. Previous to its introduction to the profession by Dr. Simpson as the means of relieving the pangs of labour, an eminent judicial officer in Calcutta, noted for the kindliness of his heart and his benevolence—a bachelor—seemed always so distressed to think that women should suffer so greatly at the time of childbirth, that he hoped mesmerism might be successfully applied to diminish it. He even went so far as to place in my hands fifty pounds, as a gift to any one who would devise some method for destroying the pain of childbearing. It was not until chloroform had been introduced that this was effected, in the Midwifery Hospital in Calcutta, under Dr. Duncan Stewart; when, with becoming liberality, Dr. Stewart presented the same sum for the purchase of comforts for the hospital, and by this and by other donations he obtained

rendered the Midwifery Hospital in Calcutta one of the most comfortable and convenient institutions I have met with.

In any case of danger during delivery of a native woman, it generally happens that the husband will remain in the room, from anxiety, or it may be from jealousy; and it has been reported to me on one occasion, that during the moment the surgeon was removing the placenta in a case of hæmorrhage in a Mussulman woman (which class is always most difficult to manage in sickness), the husband laid hold of the surgeon's arm, and pulled it firmly from the uterus, thereby producing an inverted condition which the surgeon was not allowed to return, and the result of which was not known.

From several specimens of partially inverted uterus that I have met with, and from others found in the bodies brought for dissection, it is, perhaps, not altogether an unfrequent occurrence in the native practice of midwifery.

The establishment for the last twelve years by the parental Government of India of an excellent Midwifery School and Hospital attached to the Medical College, Calcutta, and the efficient instruction there afforded to the native students, as well as the educating of a class of nurses and good midwives in the hospital, with the general distribution of the latter amongst the respectable natives in Calcutta, and of the former throughout the country, to most of the civil stations as well as the presidency, may, for the future, render such cases less frequent, and by degrees unknown.

A CASE

OF

FALLOPIAN PREGNANCY.

BY

HENRY GRACE, Esq., M.R.C.S.E., &c.

Communicated by Dr. GRAILY HEWITT.

Read March 7th, 1860.

On the 23d of December, 1859, I was summoned, about 9 a.m., to Mrs. F—, æt. 32, married, and having two children. I found her in a state approaching syncope; complaining of pain in the lower part of the abdomen, which was tender and a little swollen; her countenance very pallid; her pulse accelerated, very small, and weak; and her extremities cold. There was no hæmorrhage per vaginam, and the uterus appeared unimpregnated. She felt quite well at 8 a.m., but on passing a difficult stool was suddenly seized with pain in the bowels and faintness. She had previously passed blood with her fæces, but could not tell whether she had done so on that morning. She believed she was not pregnant, having menstruated copiously a fortnight before, although previously she had not done so for six weeks, which was unusual. After the administration of brandy she rallied slightly; upon which I gave her acetate of lead and opium, and applied a turpentine stupe to the bowels, and hot water to the feet.

At 10 a.m. her pulse became much worse; her blanched appearance increased; and sickness supervened, the ejected matter resembling coffee-grounds. I found it necessary to repeat the brandy, of which she took a table-spoonful every

ten or fifteen minutes until 6 p.m., except occasionally, when unable to swallow.

At 3 p.m. Dr. Lyon, Consulting-Physician to the Bristol Royal Infirmary, having been called in, saw the patient with me, and at once diagnosed her case to be one of extra-uterine fœtation, with gradual oozing of blood into the peritoneal sac. Dr. Lyon agreed with me in my treatment, and thought she must inevitably soon sink.

At 6 p.m. her pulse improved, and did not fall so quickly as before, after the administration of the stimulant, and consequently I ordered it to be given less frequently. I procured some ice, which was grateful to her, allaying the sickness and thirst. The patient continued to improve, and next day I gradually diminished the brandy, substituting strong beef-tea, eggs, and wine. She still took the acetate of lead and opium every four hours.

December 25th.—Her pulse was slower and stronger, she had no pain, and very slight swelling of the abdomen; but it was tender on pressure, especially on the left side, where the turpentine had blistered it. I ordered a mixture containing iron; of this she took but one dose, as it produced sickness.

27th.—She was better in every respect, but the bowels not having been moved since the attack, I ordered an injection of gruel, which brought away some hard scybala.

28th.—Repeated the injection, and she passed a quantity of dark, fluid fæces.

30th.—She continued to gain strength, but complained of slight pain in the back, and menstruation came on, apparently in a natural manner, during the night, continuing for four days.

January 3d.—The discharge per vaginam ceased, but the pain in the back remained, and the patient complained of pains in the bowels resembling labour; her pulse was stronger, but her appetite not so good.

5th.—Much stronger; talked of getting up, but the bearing-down pain remained, except when relieved by opium. Ordered the injection to be repeated.

6th.—At 4 p.m., the former alarming symptoms having

reappeared, the same remedies were tried, but they were unavailing, and she died at 7 p.m.

Post-mortem appearances.—On laying open the abdomen, which was slightly distended, about three pints of blood, partly coagulated, were found within the peritoneal sac, the intestines showing not the least trace of inflammation. After the removal of the uterus and its appendages, the source of the hæmorrhage was apparent, viz., the rupture of the left Fallopian tube, which was enlarged to the size of a walnut about its middle, to which a small clot of blood was adherent. On carefully incising this enlargement, a layer resembling the deciduous membrane presented itself within the tube connected with the chorion. On a deeper incision through the amnion, about a drachm of liquor amnii escaped, and an ovum of about six or seven weeks was plainly visible. The uterus was not at all enlarged or congested, and on laying it open no deciduous membrane was seen. It presented the usual appearance of the unimpregnated state. Dropsy had commenced in the right ovary, which contained about three ounces of fluid. A corpus luteum was present in the left ovary.

ON

CONCEALED ACCIDENTAL HÆMORRHAGE

AT THE LATTER END OF PREGNANCY AND DURING LABOUR.

BY

J. BRAXTON HICKS, M.D. Lond., F.L.S.,

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Read March 7th and July 4th, 1860.

Blood, issuing from a separation between the uterus and placenta, as is well known, generally makes its way, sooner or later, between the membranes and uterus, and thereby a portion of it becomes visible externally; but the proportion which that appearing externally bears to that remaining internally varies considerably, and is dependent on—first, the rapidity with which it is effused; and, secondly, the position of the source of the hæmorrhage. Should the quantity be small, and within the circumferential margin of the placenta, a clot will soon form, and scarcely any disturbance result; but should the origin be more central, a considerable quantity will be effused, and clots succeeding clots be formed before the margin of the placenta yields, even although the greater part of its texture be obliterated by the compression. It happens rarely, however, that the margin of the placenta never yields; but by its bulging in, and the yielding of the elastic uterine walls, room is made for a loss of blood, perilous, if not fatal, to the maternal life.

The above conditions may occur at any period of pregnancy after the placenta is formed; and whether blood appear externally or not, it may sometimes be attended with serious consequences, the more so if, being thrown off

our guard, from the absence of external symptoms, valuable time is lost and the system seriously compromised before we are aware.

It is, however, to its occurrence near the full term, and during actual labour, that the following remarks will apply.

And, first, I may mention that this formidable complication of labour is very rarely met with, or at least very few instances are reported; after a lengthened search, I have succeeded in finding memoranda of only fifteen cases, to which I shall add one from my own practice and seven from the practice of others, to whose kindness I am indebted for the reports subjoined.

This condition has been alluded to more or less distinctly by several obstetric writers—as Burns, Merriman, Blundell Ingelby, Lee, Baudelocque, Hardy and McClintock, and Murphy; yet it does not appear from their writings that any case had occurred to themselves. Those of the above mentioned who describe cases at all quote them from others; for instance, Ingelby, in his excellent treatise 'On Uterine Hæmorrhage,' quotes two cases, one occurring to Mr. Saumarez and one to Mr. Coley, abstracts of which are given below. Again, Baudelocque, who has given a very lucid memoir on the same point,[1] after describing some in the early months, only quotes Albinus, while Hardy and McClintock report from Dr. Johnson's oral communication, and in many of these the details are very scanty. Therefore, under these circumstances, it seems to me of much advantage that these cases should be placed together; and in so doing, while condensing the reports, I have been careful not to omit any point of importance.

Case 1, given by Albinus, in 'Annotationum Academicarum,' lib. i, cap. 10, p. 36.—He mentions a case of labour in which the margin of the placenta retained its adhesion, while the middle portion was separated. The event was fatal; but he remarks—"Servare potuisset

[1] A. C. Baudelocque, 'Traité des Hæmorrhagies Internes de l'Uterus, 1831, § II, p. 34.

protinus rumpendo membranas infantem continentes, ut humor amnii effluereet, protrahendoque infantem cum secundinis, et si quid intus præterea concreta sanguinis remanisset. Quum enim placenta abcessit, fluit sanguis e vasis patentibus, quàm diu arterus distentus, vacuefactus autem adstringet se; sic sanguis conquiescit." Baudelocque remarks that this last sentence contains the most important precept in the treatment of uterine hæmorrhage, whether during gestation, labour, or the period succeeding to it.

Case 2 occurred in the practice of Mr. Saumarez, reported in the 'New Medical and Physical Journal,' vol. vi, p. 535, which is mentioned as follows.—"A very singular case of uterine hæmorrhage occurred a few months ago in the practice of Mr. Saumarez. A lady of weak constitution and delicate habit was attacked in the latter months of pregnancy with a slight discharge of blood from the vagina, not amounting to half an ounce, accompanied with alarming symptoms of exhaustion and debility. The os was scarcely dilated to the size of sixpence, and in such a state of rigidity as to preclude the possibility of manual assistance. She died, and it was found that a separation of the centre of the placenta from the parietes of the uterus had taken place, whilst its edges were completely adherent, forming a kind of cul-de-sac into which blood had been effused to the amount of half a pint, which had become coagulated within the cavity thus formed."

Case 3 is reported by J. Coley, Esq., of Bridgenorth, in the 'Lancet,' 1829-30, page 498.—The case occurred to him in consultation. Mrs. A—, of Roundacton, Salop, æt. 48, having advanced seven months and a half in her ninth pregnancy, after great fatigue was attacked suddenly, on July 15th, 1829, at 3 a.m., with violent pain in the region of the pubes and loins. She arose from bed, and fell fainting on the floor. The medical attendant one hour and a half after found her with cold skin, cadaverous countenance, and a fluttering, rapid, feeble pulse, from 126 to 132

per minute, and suffering the greatest torture in the situation above described. The pain was then increasing, but produced no effect on the uterus. Every now and then, particularly when moving, an increase of pain, attended with or generally followed by syncope, came on, and produced more alarming effects on the skin, countenance, and pulse, so that at one time the medical man supposed she had actually expired from the duration and degree of the asphyxia. At 4 p.m. the pulse was 132, fluttering, and occasionally, during the paroxysms of pain, absent. She could only speak in a whisper, and described the pain as a sensation of intolerable pressure or fulness, as though the abdomen were about to burst. She said she had perceived the abdomen to suddenly enlarge, and had not felt the movements of the child since the commencement of the illness. The uterine shape was natural and uniform; the smallest pressure produced great uneasiness. The os uteri was a little expanded, but more so than normal. *There was no trace of hæmorrhage* at any of the examinations. The membranes were ruptured by Mr. Coley, which gave immediate relief; no blood was in the liquor amnii, and at 5·40 p.m. he gave her a dose of secale. At 6 p.m. the skin was warm, and then she had regular periodical, uterine action exchanged for the constant torment she had endured. The os uteri dilated to the diameter of one inch, and head firmly pressing upon it. Another dose of ergot was given; two other doses were also afterwards given, the state of the patient meanwhile improving, and at 8·10 p.m. the fœtus was expelled dead; in ten minutes more the placenta came away; no hæmorrhage succeeded. The placenta showed a deep depression in the centre, and contained two pounds of blood. The patient did well afterwards.

Cases 4 and 5 are without details during life, and were related by Dr. Johnson, of Dublin, and Drs. Hardy and McClintock, and mentioned by them in their 'Report on Midwifery and Puerperal Diseases,' p. 194, as follows.—"In neither of these cases was there any external hæmor-

rhage whatever, and the separation of the placenta seemed to have been produced in one by outward violence, but in the other it was apparently of spontaneous origin. Both patients sank under the loss of blood, and upon the post-mortem examination nearly the same appearances were found in each, viz., the placenta, except at its extreme margin, was entirely detached from the uterus, and the cavity or interspace between the two contained an enormous quantity of coagulated blood."

Case 6 is reported by Isaac Harrinson, Esq., of Reading, before the Reading Pathological Society, October 27th, 1852, and published in the 'Association Medical Journal,' January 7th, 1853.

"On July 11th, 1852, at 10·30 a.m., I was called to Mrs. G—, a well-developed woman, æt. 36 years, of tolerable health, and about seven months and a half advanced in her third pregnancy; she had suffered less during this than the former pregnancies.

"From her distressed condition, I could only gain the following: she was sitting in her kitchen between 9 and 10 a.m., preparing some food, when she suddenly felt faint, her bowels were twice moved in quick succession, and severe pain in the abdomen immediately succeeded. At 10·30 a.m. I found her lying on a sofa, complaining of faintness and of extreme pain in the abdomen. She fancied labour was coming on. There was no discharge. Some brandy was given, and she rallied. I requested she should be got to bed.

"In an hour she was more distressed, more faint, and in more pain; in a few words, she was in a state of collapse.

"The abdomen was very tense, the uterus feeling doughy, being distended to the utmost; the seat of pain was principally at the fundus uteri, which reached the epigastric region. The pain was that of distension, of bursting, and indescribably distressing. The cervix uteri was not obliterated, the os just admitting the finger, the membranes unruptured, head presenting. Amid the enveloping agony she was now

and then slightly conscious of the pains of labour. I then ruptured the membranes; the waters flowed profusely and clear, without blood. She had a convulsion, in which life seemed all but extinguished.

"She was seen soon after 1 p.m. by Dr. Cowan, and it was considered that a grave accident had occurred, but whether from rupture of the abdominal or pelvic viscus it was not precisely determined. From the condition of pregnancy, and the absence of any other recognised disease, it was concluded that the uterus was the organ involved, considering that rupture, partial or complete, had taken place. Opium and brandy were given to relieve pain and keep up the strength. She was very thirsty.

"By 3 p.m. she was much the same; os uteri dilating.

"At 5 p.m. the head was perforated and child extracted, after which the abdomen was nearly the same size; firm pressure was kept up, a second child was expected, but in a few minutes a fearful gush of placenta, clots, and fluid blood, to the amount of some quarts, took place. The uterus then contracted into the pelvis, pressure was kept up, but no further escape of blood took place. After this she was easier, but in a short time restlessness increased; she tossed about incessantly; the extremities became cold. At 8·30 she fell into a quiet sleep, in which she died, at about 10 p.m., about twelve hours after her first seizure.

"At the autopsy the uterus was found well contracted; no blood within it."

The next three cases are reported by my colleague, Dr. Oldham, and are to be found in the 'Guy's Hospital Reports,' 1856.

Case 7 occurred in a lady æt. 40, in her fourth pregnancy, within six weeks of her full term. She was taken suddenly with syncope, which after a time became alarming. The uterus increased in bulk, became much firmer, well defined, but without uterine action. The os was stretched open to the size of a shilling, but the membranes were

flaccid and the head readily felt and moveable. The liquor amnii was drawn off by puncture, a bandage placed over the uterus, and secale given, which, however, was soon vomited. In about two hours and a half labour-pains began, and in less than three hours after that a dead male child was born; but before the cord could be separated she complained of pain in the region of the uterus, she became faint, and blood began to flow. The hand was promptly introduced into the uterus, which was largely distended and filled with coagulated and fluid blood; the placenta was loose, and by pressure without, as the hand was removed from within, the uterus rapidly expelled its contents, and contracted, without any further symptom. A long-continued debility succeeded. The placenta was found, as in Mr. Coley's case, deeply hollowed out by the pressure of the clots; more than one half its surface was thus affected.

Case 8 occurred in the Charity of Guy's Hospital, October 23d, 1850, in a poor woman, æt. 40, in her tenth confinement. She was taken in the morning with fainting, which continued on the slightest exertion during the day. At 8 p.m. her attendant was summoned, and found her in a state of collapse. Body and extremities cold; countenance blanched; no pulse at wrist; the os uteri the size of a half-crown; the head presenting. No external hæmorrhage occurred till 11·30 p.m., and then only in small quantity. But the uterus was very distended, so as to give a suspicion of twins or dropsy of the amnion. In about half an hour she rallied, and the membranes were ruptured. No unusual quantity of fluid flowed. At 2 a.m. of the 24th the os uteri was fully dilated, and the head in the cavity of the pelvis, yet she had experienced no regular uterine pains. By this time she had rallied well, and took nourishment. Secale was given, but without effect. In this state she went on till 6 a.m., when she became exhausted; pulse rapid, more feeble, but the body warm. *No external hæmorrhage occurred* at this time. This was in

consequence of attempting to sit up in bed. Ten minutes after, she was dead.

After laying the body out a large quantity of blood came away per vaginam, saturating bedclothes and bedding. On examination, the uterus was very distended, and within it large clots of blood, enough to fill two large chamber-vessels. The placenta was detached, except a small portion.

Case 9, also in Guy's Lying-in Charity, was in a woman æt. 38, in her eighth pregnancy, and between the eighth and ninth months of pregnancy. She had been drinking on Christmas Day, 1855, and feeling labour-pains coming on, sent for an attendant, who arrived at 4·30 p.m. He found the os uteri dilated to the size of a shilling, the head presenting, but without labour-pains. She was cold and sweating, which was considered to be in consequence of the drink she had indulged in. He left her, and on being summoned again to her at 11 p.m. he found her dead. *There had been no external hæmorrhage.*

The post-mortem examination showed the os uteri dilated to the size of a crown-piece, membranes ruptured, and the walls of uterus very thin. About five pints of coagulated blood were found between the placenta and the anterior wall of uterus, the former being entirely detached. The placenta was flattened and thinned throughout, one portion more distinctly than the rest, and apparently marked by clots; otherwise it was healthy.

The three following cases are from a paper in the 'Liverpool Medico-Chirurgical Journal,' January, 1857, by L. E. Desmond, Esq., B.A., in which the author gives one which occurred to himself, and adds two others, one furnished him by Dr. Hardy, the other from Dr. Churchill's report. To these are appended some able remarks.

Case 10.—A lady, æt. 42, delicate-looking, and who had not enjoyed good health for some years, had just completed

the eighth month of her fourteenth pregnancy, not having had any child for four years.

About 12 noon, June 2d, 1855, while quietly seated on a sofa, sewing, she fainted, and I saw her in half an hour afterwards. I made strict inquiry about her occupations during the morning, and was told that she had not been exerting herself in any way. I found her in a state of profound syncope, almost of collapse; face and hands pale, cold, covered with a clammy sweat; feet cold; pulse just perceptible. She was quite sensible, but could not speak above a whisper; no discharge of blood from vagina or elsewhere; complained of slight pain just above epigastrium. I found the uterus high up, the child's head lying over the os, which was thin and firmly closed, and would admit no more than the tip of the finger. There were no pains nor any attempt at uterine contraction. It was quite evident the hæmorrhage was going on internally. I put her to bed, gave her some brandy punch, kept the extremities warm, and remained to watch for labour.

In half an hour, she being somewhat revived with the stimulants and warmth, I proceeded to rupture the membranes; but found that nature or the removal to bed had already done so, and that the liquor amnii was dribbling away *perfectly colourless*. The os was firmly contracted. There was *no uterine action nor any pain*, except a dull aching across the hypogastrium and loins. I now gave twenty drops of Battley's Liq. Opii Sed. Continued the brandy throughout the day, kept the extremities warm, and remained to watch, in the hopes that, the membranes being ruptured, labour would come on. From this till past 5 o'clock the pulse improved and became distinct, the voice improved, and lips red, but the os uteri remained firmly contracted and not dilated. I should mention that at 3 o'clock the liquor amnii became of a pale-pink colour, and a small quantity of blood appeared on the napkin. The entire amount of external hæmorrhage did not exceed an ounce and a half to two ounces. A binder was now applied, as firm as she could bear without inconvenience.

5·30 p.m.—No labour, but, from the amount of reaction, I thought it probable that coagula had stopped the open vessels, and that by supporting her strength for some time either labour would supervene or she would be in a condition for instrumental or manual interference.

She continued in this state, gradually becoming more exhausted, till 1 o'clock, when she died, just thirteen hours from her first fainting.

Transfusion was tried from a healthy servant girl about half an hour before death.

Necropsy, twenty hours after death.—Abdominal integuments lined with fat an inch and a half thick, which was also deposited thickly in the mesentery.

Uterus healthy in appearance, with the exception of two or three ecchymosed patches; and on opening it in the median line a large coagulum, which nearly filled an ordinary chamber-pot, came into view, separating the front of the fundus of that organ from the placenta, which had there been attached, but now separated from the uterus *throughout its entire extent,* and also the membranes for about three or four inches around, while downwards, towards the left ilium, another clot, of about four ounces, had dissected the membranes in its course from the upper or original separation, and from its proximity to the os was the source whence the slight external hæmorrhage came. *The placenta* was of the ordinary size, perfectly healthy, and showed no sign of disease. No liquid of any kind within the membranes. The fœtus was a well-grown female, and quite blanched. The other organs healthy, except some fatty degeneration of right ventricle and auricle of heart.

Case 11.—This case occurred to Dr. Hardy, of Dublin, and is described in the same paper. It occurred in 1854, in a woman who had had twelve or thirteen children, and had hæmorrhage without with almost every confinement.

The membranes were ruptured on the 1st of the month (which is not stated), without the setting in of labour, or any particular symptoms, until the 4th, when faintness came

on; she was faint, pale, nearly pulseless. No discharge of blood. Whilst using means to get up her strength pains set in, and within half an hour the os, which had been closed, began to dilate, the head presenting. The child was expelled without much effort by the uterus, then the placenta, and lastly, a clot of the size of a very large child's head. The uterus contracted well, but, from her debility and want of strength, quickly expanded again, and she died within half an hour after expulsion of the child—a female, dead-born.

Case 12.—Dr. Churchill says, "There was little or no uterine action; craniotomy was advised, as soon as the os should become dilated," which does not seem to have taken place, for "further hæmorrhage took place, and she died on the evening of the same day." "The centre of the placenta was detached, and formed a cup-like cavity, filled with coagulum." This was probably only temporarily concealed.

Case 13 is thus clearly described by John Audland, Esq., Tintern, near Chepstow, in the 'British Medical Journal,' October 31st, 1857:—"On Sunday afternoon, August 30th, I was sent for to visit Mrs. M—, æt. 42, who had expected her tenth confinement in three or four weeks. I learned on that and subsequent visits that on the previous Wednesday night, soon after getting into bed, she became faint and cold, and had a severe fit of shivering. Some gin was given her, and she gradually rallied. The next morning she got up, but felt very weak and giddy, and her limbs could scarcely support her. On Friday she was obliged to go out, and walked with some difficulty a distance of about a mile and a half. About 2 a.m., Sunday morning, she was suddenly seized with vomiting, and became faint, and felt, to use her own words, her burden fall down. She continued weak and faint, and vomited at intervals during the morning, and between 2 and 3 o'clock p.m. I saw her.

"She was then extremely low and weak, with pale face, sunken eyes, contracted features, weak, fluttering pulse.

She had had no regular pains, but felt a fulness about the loins and hips, and a constant bearing down. The uterine tumour was large and prominent, and remarkably hard and tense.

"On making examination, I found the os uteri dilated to about a crown-piece, membranes *unbroken,* and the head presenting. There had not been the slightest discharge. I administered stimulants, and before I had decided what other means to adopt a severe pain came on, by which the membranes were broken, and the child (of course dead) and the placenta, followed by large clots of blood, were expelled. I bound up the abdomen, gave a large dose of opium, brandy, and other stimulants, and the woman gradually rallied. By nutritious diet, a course of iron, &c., she slowly recovered, and is now, although still weak, able to go about."

Remarks.—"The presumption is that, from some cause or other, blood was, on the Wednesday night, poured out between the uterus and placenta, where it was confined, for on examination a portion of the placenta (about one eighth of its surface) was much more condensed than the remainder, and had clotted blood firmly adhering to it; that on Friday more blood was shed, which caused the whole placenta to be separated on the Sunday morning, when she was suddenly seized with vomiting, and felt her burden fall down."

The above are the only published cases I have been able to find; to these I shall add one from my own practice, with some others well marked, for the reports of which I am indebted to the gentlemen whose names appear in their respective places, and to whom I take this opportunity of tendering my best thanks.

Case 14 occurred to myself in the Guy's Lying-in Charity. The patient was about forty years old, Irish, in her eleventh labour. It appears that her six labours previous have always been attended with frightful hæmorrhages, so much so that her life was despaired of in many. On the

present occasion, after having been in labour about two hours, the membranes having broken and the pains increasing, she was taken with collapse and quick pulse, which a large amount of stimulants did not relieve. After the lapse of two hours I saw her, and found her blanched, pulse very small and slow; surface cold, scarcely able to articulate in weakest whisper, with much jactitation. I examined and found the head in the cavity of the pelvis, the os uteri fully expanded, no more than the ordinary amount of discharge, but the head certainly not impelled downwards, as in natural pains; this was the more striking as the uterus was large, very firm and tense, as if in a state of powerful contraction. I therefore considered the case to be one of internal, concealed hæmorrhage. A large quantity of brandy had already been given with scarcely any effect, and it was evident from her state that the urgent necessity of sustaining life must for the present supersede any manual interference. Having given directions to that effect, I requested I might be sent for should any change take place. In about an hour I was called, and on arrival I found that the child had been born somewhat suddenly, that the placenta followed almost immediately, and that with it an enormous quantity of blood had flowed. It, however, had ceased some little time. Very cold water had been applied externally, and the uterus grasped, &c. The patient seemed certainly rather revived from the condition in which I found her before. A dose of secale was given to ensure a full contraction of the uterus, which was imperfectly contracted, and through the assiduity of the gentlemen of the charity, the uterus was kept up for some hours. Cold was continued to the vulva, but unfortunately about half a pint of blood more escaped, bringing on syncope more profound than before, delirium, jactitation, and vomiting. After a few hours these symptoms ceased, and were succeeded by a more revived condition, accompanied by shortness of breath, great thirst and cough; she lingered on for about twenty-four hours, and then died. She had been subject to asthma for a few years.

We were allowed to examine only the uterus. It was contracted tolerably well. The anterior surface showed a number of rents; one oblique, as if cut by a knife, about two inches long and a quarter of an inch deep; the others were longitudinal fissures, irregular, and the sides not completely separated at places, varying from two and a half inches to one inch in length, and about one eighth of an inch in depth, being thus confined to the peritoneal coat. The posterior surface was natural. The anterior wall was as thick again as the posterior, of a white, waxy, semi-transparent appearance, very firm to the touch, and tough, contrasting strongly with the posterior half of the organ, which was normal; on the anterior half not a trace of any blood-vessel could be seen. The peculiar point connected with these rents was that not a drop of blood had escaped into the peritoneum.

The interior of the uterus was, as far as we could see, as it should appear after labour.[1]

Case 15 occurred in 1852, in the practice of J. Harrinson, Esq., of Reading, to whom I am indebted for the report.—"A feeble woman, æt. 38, fully seven months advanced in her seventh pregnancy, having been in bed with influenza all day, got out at 6 p.m. to relieve her bowels, and while doing so was taken with sickness and vomited, felt severe pain in the abdomen, and complained that she could not see. I saw her at 8 p.m. There were signs of coming labour, but no discharge. At 10 p.m. I found she had had a slight bloody discharge. The placenta was not presenting, and the discharge had ceased. The pains became forcible at 12; I ruptured the membranes, and at 1 p.m. the head was born. Another violent pain expelled the body and extremities, with a number of clots, to some distance from the bed. The

[1] The cases are rare (at least recorded) where the peritoneal coat alone is rent. Frask mentions two ('American Journal of Medicine,' January, 1848, Cases 285, 286), and also quotes Dr. Clarke. Another is reported in 'Med.-Chir. Trans.,' vol. xix, Oct., 1835. A few other cases have also been recorded.

uterus was immediately grasped, and it readily and firmly contracted. With the placenta came another mass of clots, and a third immediately succeeded. She died in half an hour."

Case 16 occurred at Wallingford to J. H. Marshall, Esq., and Wm. Atkinson, Esq. To the latter, through Mr. Harrinson, I am obliged for the following particulars:—"Mrs. M—, a fine, healthy young woman, who had borne children, had felt something give way on her lifting a pail of water the day previous, was found by her attendant in a collapsed state, which it appears had come on with what they thought was labour, but which was not accompanied by anything like labour-pains. The os uteri was slightly dilated, the membranes perfect, and the uterus distended at the fundus, but no pain existed there. She said she felt sinking and dying, but without pain. Stimulants were immediately and freely given, but with difficulty swallowed. It was determined to deliver directly, but while preparations were going on she died. There had been no discharge of blood whatever.

"Cæsarean section was performed at once, in the hope of saving the child, but without success. The uterus was found filled with blood."

Case 17, furnished me by J. T. Musgrave, Esq., who was called to the case.—"Mrs. —, a very stout woman, aged about forty, and who had resided in the West Indies, being in labour with her ninth child, and walking across the room, was suddenly seized with faintness. She was laid on the bed, and died before I reached the house. Cæsarean section was advised to save the child, but nearly half an hour elapsed before consent was obtained. The abdomen was then opened; no blood in peritoneal cavity, but on opening the uterus, which was distended and lax, it was found filled with an immense quantity of clots and blood. The child was dead. There had been no discharge of blood externally. The pains had been very slight." Mr. Musgrave further adds—"My impression is that the presentation was natural, and the

placenta, partly detached, was situated at the upper and back part of the uterus."

Case 18 was under the care of Dr. W. O. Priestley, who has given me the particulars.—" A poor woman, who had had several premature confinements, was taken ill with labour pains in the eighth month of pregnancy; when I saw her there was little dilatation of the os uteri, but each accession of the uterine contractions was attended with such intense pain that the patient shrieked out with agony. The pain did not pass away with the uterine contractions, but it was less severe during the interval. On laying the hand over the abdomen, a round swelling was felt bulging from the left side of the uterus. This was extremely tender to the touch, and became more tense during a labour-pain. There was no hæmorrhage from the vagina, nor could any portion of the fœtus be distinguished in the round swelling mentioned, but it was feared that if a rupture of the uterus had not already taken place, a laceration of its parietes was to be anticipated. In the uncertainty as to the nature of the complication, a consultation was held, and it was determined to attempt the introduction of the hand into the uterus, and the subsequent turning of the child. The os was fortunately found sufficiently dilatable, the turning was accomplished without difficulty, and a living child produced. The placenta was immediately afterwards removed by the hand, and it was then discovered that no laceration of the uterus had occurred, but a large, recent clot occupied the centre of the placenta, and this had so compressed the placental tissue that a basin-like depression was formed, filled by a large coagulum. The intense pain before experienced ceased immediately delivery was completed, there was no unusual hæmorrhage afterwards, and the patient made a speedy recovery."

In the foregoing cases it will be seen that the hæmorrhage has been completely concealed till the termination of labour or till death. There are, however, some in which the internal effusion is only marked for a certain time, and to a certain

degree. Till the blood appears externally the case is truly one of concealed hæmorrhage, giving rise to the same symptoms, as also to the same difficulty of diagnosis. When at last flooding appears, the source of the faintness becomes tolerably clear, and the treatment more easily decided upon. Of such a state the following are illustrations:

Case 19.—This and the following one kindly sent me by Dr. Elkington, of Liverpool.—"Mrs. M —, æt. 23, of plethoric habit, mother of two children at the full period, about the commencement of the ninth month of her third pregnancy. She walked about a mile to her mother's, and while stepping over a gutter was alarmed at a noise. She felt a pain in her side. When she sat down she felt rather faint, but soon recovered. She returned home in a cab, and soon after had return of the faintness, which was immediately followed by a severe pain in the epigastrium. When I visited her, about 9 p.m., she was complaining of severe pain over the upper part of the abdomen, about the fundus uteri, and of great distension "as if she would burst," and of pain when she moved. The slightest pressure caused great distress, *but there was no true uterine pain*; the os was closed. She had been sick once or twice, the pulse was 120 per minute. Shortly after leaving the room I was called back, and found her now flooding very much; I found the os uteri slightly open, and the membranes distended, the head presenting. I immediately ruptured the membranes, applied a bandage, and gave her a dose of ergot. Uterine action was speedily established, the labour progressed rapidly, and was terminated in less than two hours. The placenta was expelled immediately after the birth of the child; a large coagulum was attached to it, covering one third of the surface. The child was stillborn. The mother remained very faint and exhausted for two or three hours, but had a rapid and perfect recovery, and has since been confined of a living child at full period."

Case 20 is also of Dr. Elkington's.—"Mrs. J—, aged about forty, mother of several children, out-patient

of the Lying-in-Hospital, was visited by Mr. Clarkson, the resident surgeon, on the evening of the 16th of June, 1844. She was in her eighth or ninth month of pregnancy. Mr. Clarkson says—'I found her evidently in a state of great collapse; the pulse was small, feeble, and tremulous; the skin cold and damp, and the face pale; she also complained of a very violent, cramping pain round the upper part of the abdomen, which had been constant for several hours, and which she thinks was occasioned by violent exertion in pumping water in the morning. She had not had any labour-pains, and the os uteri was but slightly dilated, just admitting the points of two fingers; it was, however, soft and dilatable. There had not been any external hæmorrhage, nor was my finger blooded by the examination. The abdominal parietes were firm and unyielding. There being no appearance of labour, I left after giving her a dose of brandy and water and an opiate. I was almost immediately recalled, and I found on my arrival she had suffered from an attack of external hæmorrhage, which had still further reduced her. The os uteri was about the size of a half-crown, without the slightest uterine action. Hoping to excite uterine action, I gave a dose of ergot and more brandy and water. The collapse continuing, Dr. Waddy and Dr. Elkington were sent for, but arrived as she was in articulo mortis. The Cæsarean section was performed as soon as possible, in the hope of saving the child, which, however, had been dead, apparently, for some days. The placenta was found to be entirely detached from the uterine surface, and a very large, firm coagulum occupied the posterior part of the uterine cavity.' "

Case 21 is also sent to me by J. Harrinson, Esq.—A healthy woman, at the full period of her seventh pregnancy, three days before her confinement experienced a feeling of bursting in her abdomen, which was very tender to the touch; and for the last twenty-four hours a rather profuse blood-tinged, watery discharge appeared. The placenta not presenting, the membranes were ruptured, and labour

rapidly advanced. With the child came a great mass of clots. No further hæmorrhage.

Case 22. (By T. Herbert Barker, M.D. Lond., F.R.C.S., and copied from the 'Institute,' vol. ii, No. 7, p. 127, 1851. Condensed.) Mrs. C—, who was six months advanced in her tenth pregnancy, while in the act of stooping was suddenly seized with severe pain in the region of the uterus, which was speedily followed by faintness, bordering on actual syncope. Dr. H. Barker saw her shortly after, between 9 and 10 a.m., on the 28th of January, 1851. He found her extremely pale, pulse scarcely perceptible, and the pain in lower abdomen severe. She had no vaginal discharge whatever, and the os uteri was closed. The movements of the fœtus had been lively up to the occurrence of the attack, since which they had ceased to be felt.

With the assistance of stimulants, as brandy, ammonia, and an opiate, combined with the horizontal posture, she passed through the day with frequent alternations of faintness and reaction, with occasional vomiting. Towards the evening she complained of a feeling of tightness over the whole abdomen, which she said "she could not indent," which appeared to Dr. Barker's hand more tense, and the uterus larger.

At 6 p.m. the os uteri was still closed, and there was no discharge. About 7 p. m. she passed a small quantity of blood per vaginam; the os had dilated, so as to admit the top of the finger; pain, not of an intermittent character, was complained of in the abdomen. A dose of Secale cornutum was then given.

Shortly afterwards, she had a strong desire to relieve the bowels, when about three parts of a chamber-vesselfull of dark-coloured liquid blood was speedily passed. Much faintness was experienced, and the pulse flagged; stimulants were given, and she rallied, expressing herself much relieved of the tightness of the abdomen, which was less tense than before. The os dilated to the size of a shilling, and was dilatable. Another dose of secale was given, and in ten minutes after

a more decided labour-pain came on, and the membranes were bulging. Free hæmorrhage followed on the cessation of the pain, and her strength was seriously diminished. The pulse was scarcely perceptible, with considerable restlessness and frequent vomiting.

Upon consultation with Mr. Hurst, the membranes were ruptured, and another dose of secale given, with stimulants. Plenty of liquor amnii escaped, and a foot was felt. From this time the hæmorrhage was inconsiderable, the pains came on regularly, and about 9 p.m. the head and placenta were expelled together. The placenta was of small bulk, and unusually pale; the child dead and blanched.

This patient recovered favorably. Dr. Barker remarks that it will be seen that for nine hours after the first attack there was no external manifestation of hæmorrhage.

Case 23. (From 'Medical Times,' Oct. 18th, 1851, by Dr. T. H. Tanner.)—Mrs. P—, æt. 32, ninth pregnancy, about eight months and a half advanced. Having been forcibly thrown down, was immediately after seized with vomiting of coffee-grounds-like matter; at the same time she complained of great pain about the umbilical region, became faint, and stated that she was dying. Dr. Tanner shortly afterwards found her very much exhausted, still suffering from sickness, cold, and with a very feeble pulse. The os uteri was about the size of a shilling, and dilatable. There were no labour-pains. During the examination slight uterine contraction came on, and forced down a clot of blood. This explained the true nature of the case; the membranes were ruptured, and ergot given, with brandy, and the uterus endeavoured to be roused to action by alternate application of heat and cold, and with the desired effect. The patient rallied, and for three hours labour went on till the os was fully dilated, and the head low down in pelvis, when it suddenly ceased, and flooding again set in. Delivery was then hastened by the forceps, and the child (dead) was soon born, and immediately after a large clot of blood followed. The placenta was easily removed, and the uterus contracted; but alarming prostra-

tion succeeded, so as to place the patient's life in the greatest jeopardy for some hours. She, however, eventually recovered.

Dr. Armstrong of Gravesend, has kindly furnished me with an abstract of a case which occurred to him, which ended fatally, and which will be probably read by him at one of the medical association societies.

As an example of accidental hæmorrhage, concealed temporarily, Mr. Harrinson's case following will serve as an example :—" A feeble woman, in the seventh month of her fifth pregnancy, after lifting a heavy weight, had flooding to the extent of two pints. On visiting her there was no discharge then, nor any subsequently, except a watery one. Next day labour came on, and with the placenta some large firm clots, one larger than the fœtal head."

This class of cases is not unfrequently met with, and should fainting or collapse supervene, more than might be expected from the amount of external signs, the attention will, of course, be directed to the possibility of the detention of a portion of the effused blood in the uterus.

The analysis of the above case is as follows:

Died	15
Recovered	8
	23

Of the 15 who died, 1 was at 7th month of pregnancy.
" 1 " $7\frac{1}{2}$ " "
" 1 " 8 " "
" 1 " $8\frac{1}{2}$ " "
" 8 were at full term "
In 3 the period was not mentioned.

Of the 8 who recovered, 1 was at 6th month of pregnancy.
" 2 were at $7\frac{1}{2}$ " "
" 3 " 8 " "
" 1 " $8\frac{1}{2}$ " "
" 1 was at full term "

The state of membranes, where mentioned, was as follows:

In those who died—	
They were discharged artificially or naturally in	9
Unbroken in	2
	11
In those who recovered—	
They were discharged artificially . . .	7
Unbroken	0
	7

The ages of the patients, where mentioned, are as follows:

1	at	23
1	„	32
1	„	36
2	„	38
5	„	40
2	„	42
1	„	48
Total, 13		

Where the age is not mentioned, some appear to have had many children.

Of those who died . .	1 was aged	36
„ . .	2 were aged	38
„ . .	4 „	40
„ . .	1 was aged	42
„ . .	1 „	48
Of those who recovered .	1 „	40
„ . .	1 „	42
„ . .	1 „	32
„ . .	1 „	23

Any one who has been at the pains of reading through the above reports will, I think, be struck by the great similarity of the symptoms in all the cases. It is not my intention to enter fully into all the symptoms, but to confine myself to those which are diagnostic; and this is the more important, because in many instances the true condition of

the case has not been detected till too late, while in some instances another accident has been suspected.

And 1st. The most prominent and constant symptom is the *faintness, or collapse,* which very frequently takes place suddenly. It is possible that the loss of blood from the system is not the only cause of the collapse, but that the injury to the uterus by the tension has some share in increasing that state.

2dly. Almost as constantly, the *great distension of the fundus uteri,* whereby it protrudes more than naturally into the epigastric region, accompanied by an indistinct, doughy feel, the outline of the fœtus being lost at that part; and in about half the cases a very distressing sensation, "as if about to burst," experienced by the patient, with or without pain or tenderness on pressure, which possibly would be more frequently complained of were it not masked by the collapse.

3dly. The negative fact, the *nearly complete absence of true labour-pains* at the first occurrence of faintness, and for some time after. Thus, in nineteen, where this point is taken notice of, there were labour-pains only in three, and in one of these they were very slight.

Taking these three points collectively, the diagnosis will not be difficult, if we consider with what other conditions attending pregnancy this accident is liable to be confounded.

1st, *with rupture of uterus.*—If in ruptured uterus the fœtus have escaped, the recession of the presenting part will declare the accident, the uterus will have changed its form and size, and the child will probably be felt outside the uterus. When the rent is small, and a portion only of the fœtus has escaped, the diagnosis will be more difficult; but as rupture of uterus never takes place without some pain, the above-named symptoms supervening without any pain will clearly distinguish the two accidents. Should, however, the pains be already present, then the increasing enlargement, and indistinct feel of the fundus, will point out that the uterus is becoming filled rather than emptied.

2d, *with rupture of some other internal organ.*—It will be sufficient to reflect upon the position of the pain, namely, the fundus uteri, the fact of the patient being pregnant, the absence of any violence or previous disease, the increasing bulk of the uterus, in order that that organ be fixed upon as the seat of mischief.

3d, *with ordinary fainting.*—Perhaps this is more liable than any other condition to throw the attention of the practitioner away from the uterus, being a not infrequent occurrence in pregnancy and labour. The hand placed on the uterus will show the peculiar state of that organ, and may lead us to suspect the cause of the faintness. The addition of pain at the fundus will still further assist, and suspicions should be roused should the faintness be protracted or severe.

Therefore it will always be proper in any case of severe or protracted faintness to carefully watch the state of the uterus; and should we find it enlarging, firm and tense at the fundus, the outline of fœtus lost above, and pain over the distended uterus, we may conclude that hæmorrhage is going on internally, the more particularly if the patient has not been exerting herself nor exposed to violence, and if the liquor amnii have already escaped.

Referring to the analysis of these reports, it may be perceived that the more advanced pregnancy becomes, the more fatal is this form of accidental hæmorrhage, and this appears to arise from the following circumstances:

1st. The more easy separation of the placenta from the uterus at full term than at earlier periods, whereby there is less restraining power to the impetus of the blood.

2d. The capability of the placenta containing a greater quantity of blood, from its increased diameter, without breaking down its marginal attachment, as well as the vascular system being on a large scale, so that more blood is effused in a given time.

3d. The uterus being already distended to its normal extent, becomes from the increase of its contents less capable of expulsive efforts, and the uterine sinuses are thereby

more patent, in consequence of the arrangement of their falciform pseudo-valves.

The treatment of this formidable accident does not appear to have much light thrown upon it by the above cases. Still, there can be no doubt that the ordinary treatment employed in accidental hæmorrhage should be applied to this variety. The indications are clearly to empty the uterus, and to detach the placenta wholly at as early a period as is compatible with the safety of the mother. How far the particular part of that treatment, namely, the rupture of the membranes, can be relied on, cannot be gathered by the details now before us, for in them we find that in nearly the whole of those that died the membranes had been ruptured. Whether any of the seven who recovered would have died had it not been done it is impossible to tell. Nor should we expect the rupture of the membranes in this accident to give such relief as in the ordinary cases of accidental hæmorrhage. It will, no doubt, lessen some of the tension, but the effused blood or clot is bound down by the placental edge and membranes, preventing that part of the uterus to which the placenta is attached from contracting. Still, as the evacuations of the waters tend to hasten labour, we should always employ it, if for no other purpose, as well as the other methods now pursued in this division of flooding. But when the patient is *in extremis*, it seems best, rather than empty the uterus at once, which may be a fatal operation, to support plentifully with stimulants; rupture the membranes, if not already broken naturally; apply very firm external pressure to the uterus, especially at the fundus, with cold, and wait till a little improvement takes place; as the system revives, secale should be given, or galvanism, if at hand, employed to excite the uterus to contract. Should the parts be dilating or dilatable, and the uterus fail to respond, it seems useless to give any more time for a fresh effusion; therefore, if the child's head be low, seize it with the forceps; or if *in utero*, turn as gently as possible, of course in all cases keeping the uterus in as active a state as possible by the above means, frictions, and pressure during the expulsion of the

infant, blood, and placenta. In my own case there was a decided relief to the system after the expulsion of the uterine contents, which seems to give a little encouragement to interference, if any strength remain.

The infrequency of concealed accidental hæmorrhage makes it the more important that every case which occurs should be fully reported; and as it is highly probable that some cases have occurred which have not been made public, the author here takes the opportunity of remarking that he would esteem it a favour to receive unpublished reports of this class.

ON

SPECIAL POSITION

AND THE

OBSTETRIC BINDER,

AS AIDS IN

THE TREATMENT OF IMPEDED PARTURITION.

BY

ROBERT HARDY, M.R.C.S., L.A.C.,

LATE LECTURER ON OBSTETRICS IN THE HULL AND EAST RIDING SCHOOL OF MEDICINE; LATE SENIOR SURGEON TO THE HULL LYING IN-CHARITY.

Read March 7th, 1860.

In the year 1827, having been then in practice three years, I met with a case of impeded labour from unusual rigidity of maternal structures. I took occasion to call to my assistance the late Mr. Robert Martin Craven, fully expecting that he would deliver the patient forthwith by *the forceps*, according to the recognised aphorisms of obstetrics. To my great surprise, however, instead of so doing, *he recommended the sitting position, between two chairs*, till the fœtal head was near being born; then the removal to bed, and delivery. His plan was carried out, answered admirably, and the patient made an excellent recovery.

Having succeeded to a large midwifery connexion, abundant opportunities were afforded me of testing my friend's practice under a great variety of circumstances; and so thoroughly did I become convinced of its safety and excellency, that I made it a rule, from year to year, to urge its importance on my obstetric class and at the Hull and East Riding School of Medicine.

In the year 1848 (*i.e.* after a twenty years' trial of the practice), I put to paper my matured thoughts on the subject, in the form of an essay entitled 'On the Value of Special Position and the Obstetric Binder in Impeded Labour.' That production, from a variety of causes, has slum-

bered peacefully to the present time, its more practical parts being embodied in the paper now presented to this meeting.

It is under the persuasion that, at the present period, *special position* (by which term I mean *other* positions than the horizontal), *in the varied forms of impeded labour,* is not appreciated as its importance demands, that I am emboldened to appear before you this evening, to state my convictions and experience on a mode of practice which I have found eminently successful under a great variety of urgent circumstances. All that I claim on its behalf is a fair and candid trial of its potency and safety, and I am confident a verdict will be then pronounced in its favour.

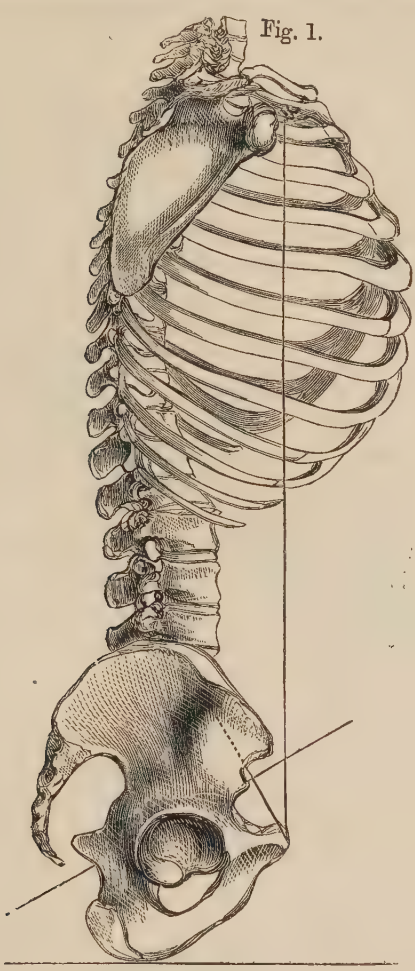
In reflecting on this subject it has often occurred to me that in our treatment of parturition generally we do not sufficiently appreciate the important fact that labour, in its activities or potencies, is dependent almost entirely on muscular power. In the first stage (when normal), these activities are restricted to the *uterus* itself, and during the second are aided most materially by the assistant muscles of respiration, including, of course, the abdominal and recti muscles. This being the fact, whatever agents weaken or render irregular muscular potency, are detrimental to the normal and expeditious accomplishment of the parturient act; and, on the contrary, every agent which excites and sustains muscular contraction essentially benefits the parturient female, by shortening the process and reducing the fatigue of labour, and by further securing to her a more complete closure of the uterus after the expulsion of its varied contents. Of these last named (*i. e.* the excito-motor forces), I attach the highest possible value to the conjoined operation *of the sedentary posture and obstetric binder,* agents which it is my present object to commend to your adoption.[1]

In order duly to estimate the advantages derivable from the two agents just named, it is important that we possess

[1] I entirely agree in the sentiment of Dr. Tyler Smith, in his recently published work on Obstetrics, that "Mechanism, position, and motor power in their various relations, are the elements or grammar, the Euclid of the Obstetric Art," and must be mastered in order to practise obstetrics with satisfaction.

definite ideas *relative to the inclination of the pelvis* (or *parturient canal*) *under a diversity of parturient positions,* with the effects which these must necessarily exert on the issues or terminations of labour. Permit me, then, to call attention

Fig. 1.



briefly to these *obstetric inclinations or planes,* which, in their varied influence on the parturient act, are of great practical interest to the obstetric practitioner.

1. In the human female, *when standing erect, the spinal*

column, viewed as a whole, is perpendicular, the base of the sacrum and the acetabula of the ossa femorum being nearly in the same perpendicular line; *the brim and cavity of the pelvis, therefore, are inclined,* the *former* being directed forward and downward, and the *latter* downward and backward, with a divergence towards the perpendicular at its inferior outlet.

The *degree of pelvic inclination* is variously estimated by different writers, continental authors giving to it a greater obliquity than is conceded by British writers generally. I wait not to consider who of these are correct, nor is it of importance, since in each case the angle formed with the horizon is sufficiently ample to demonstrate the importance of position as an impeder or accelerator of parturition.

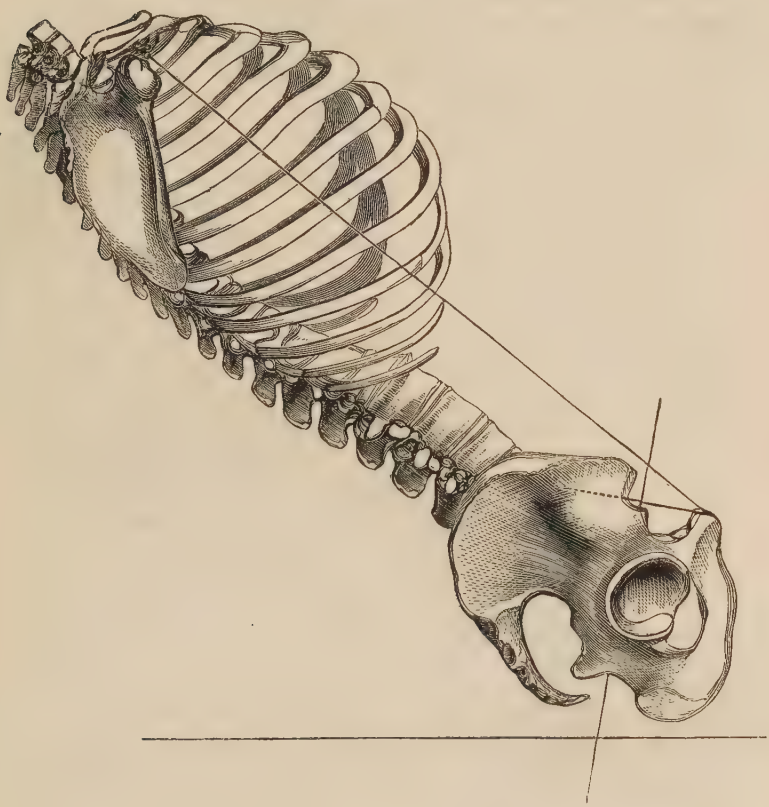
The upright position is highly favorable to progression in labour, the female supporting herself on the necks of her friends, or holding fast to one of the bed-poles. It, however, occasions great fatigue to all parties, and therefore is seldom maintained for a period sufficiently long to produce any very decided effects.

As a change from the horizontal posture, allowing the bed to be cooled down and put in order, it is of some value; as is also *the walking about the room* between two friends for half an hour, which frequently stimulates the uterus to a more vigorous action than heretofore.

2. When a well-formed female *reclines on her back,* midway between standing and lying, *the plane of the pelvic inlet is nearly horizontal, and its cavity about perpendicular, with an inclination forward at its outlet.* The conditions now stated demonstrate the great advantage accruing from the reclining position in labour, where, in addition to the ordinary expellent forces, it is deemed expedient to secure to the patient the powerful effects of *gravitation,* whether the pelvis itself or the uterine contents be considered. It need not surprise us, therefore, that with the older moderns it was the favorite obstetric position for upwards of two centuries. The *drawbacks* to delivery in this position are, nevertheless, of a serious character, and doubtless caused it

to be finally abandoned for the one upon the bed, on the patient's left side. These drawbacks are—1, the necessity for having the woman's thighs kept constantly elevated and apart by two females; 2, the packing the bed into a suitable

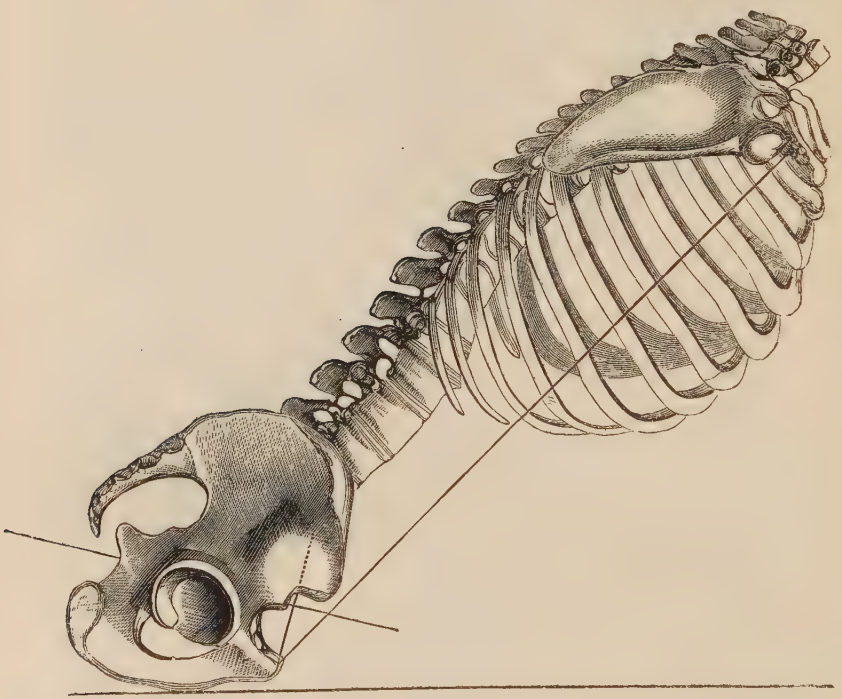
Fig. 2.



form, and the difficulty of so maintaining it; and 3, the necessity for the accoucheur's sitting in *front* of his patient, and the imperfect support which, in these circumstances, he could supply to the perinæum, where its continuity was at all jeoparded.

3. *Should a parturient female, kneeling, throw her chest far forward, resting her arms on a low chair or bed, the plane of the pelvic inlet will be nearly perpendicular, whilst its cavity will approach the horizon, the outlet being slightly inclined downward.* Here a considerable part of the uterine ovum is situated *below* the os uteri; *ergo,* it is in all respects inferior to the ordinary position in bed.

Fig. 3.



Amongst poor women, especially the Irish, it is not uncommon for the parturient female, *kneeling on the floor, to rest her nates on her separated heels,* the head and thorax being bent forward. This position favours quick delivery, but at the same time endangers the potency of the perinæum,

especially in *primiparæ*, nor does it allow of the *free exit* of the *body* of the fœtus; it is not, therefore, to be recommended by the accoucheur. I have, however, frequently adopted this position with admirable success, where, without apparent cause, the fœtal head has rested on the floor of the pelvis some time, without progressing, despite fairly energetic pains. The patient is put on her knees *in bed*, her arm resting on a chair placed in front of her (with pillows), the chair being kept steady by a female placed behind it. Three or four pains will usually suffice to bring the *head* through the outer parts, when the woman is immediately laid down, and the labour is completed without further trouble.

4. If, in labour, *a female should foolishly throw herself on her hands and knees* (which I have occasionally witnessed), *the plane of the pelvic inlet will be directed downward and backward, its cavity backward and upward, and its outlet inclining towards the horizon.* This is the worst position possible for delivery, since the head would have to *ascend considerably* ere it reached the outlet, whilst the force of gravitation in the uterine ovum not only would be in the opposite direction, but in *direct antagonism* with the contractions of the uterus. It is not to be tolerated, therefore, by the attendant accoucheur.

5. If our patient *is placed on her side in bed, the inlet, cavity, and outlet of the pelvis are all situated on the plane of the horizon.* An excellent position under ordinary circumstances, and also in all cases of instrumental delivery; yet, failing to impart the very important aids derivable from fœtal gravitation, and the strongest efforts of the abdominal and diaphragmatic muscles, of which they are respectively capable; *ergo*, it is not the best position in a majority of impeded labours.

Having now adverted to the pros and cons. of a variety of parturient postures, as they affect the duration of labour, I proceed to state that the "special position" which it is the object of this paper to recommend to the accoucheur, as holding out peculiar advantages to himself and his par-

Fig. 4.

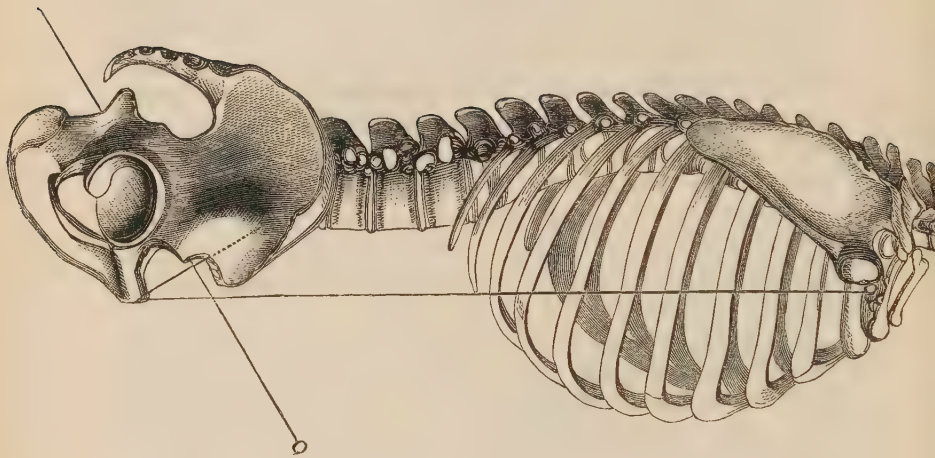
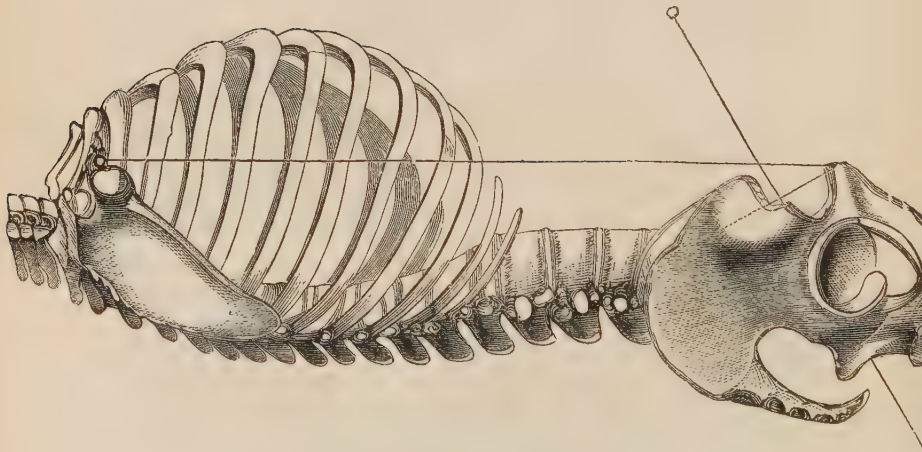


Fig. 5.

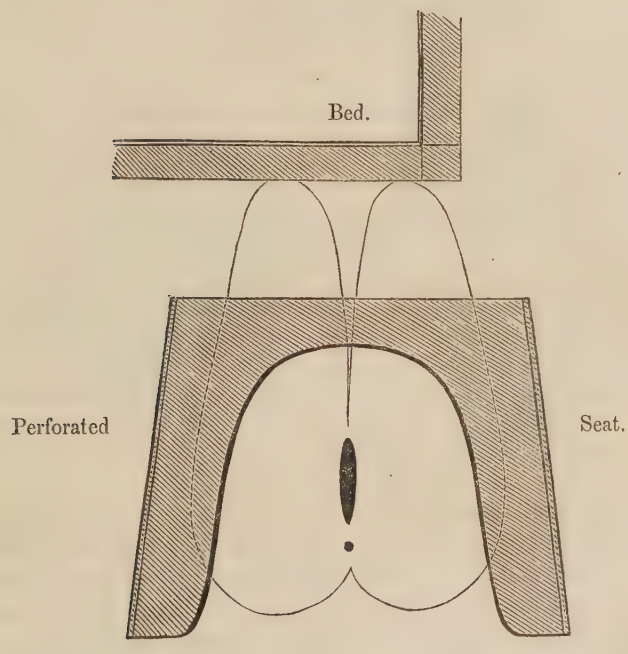


On the back.

turient friends (under a great variety of circumstances), is the one advocated by the father of medicine and his Romish successors, when unusual difficulties presented themselves, either before or subsequent to the birth of the infant, viz., THE SEDENTARY POSITION.

The placing a parturient female in the sitting posture may be effected in two ways—1, by seating her between two chairs, suitably arranged; or 2, by adopting a simple and inexpensive apparatus made for the purpose. In private practice the chairs are most convenient, and answer admirably; whilst in obstetric institutions perforated seats on firm supports, and with side arms, are to be preferred. The annexed diagrams may serve to illustrate these points.

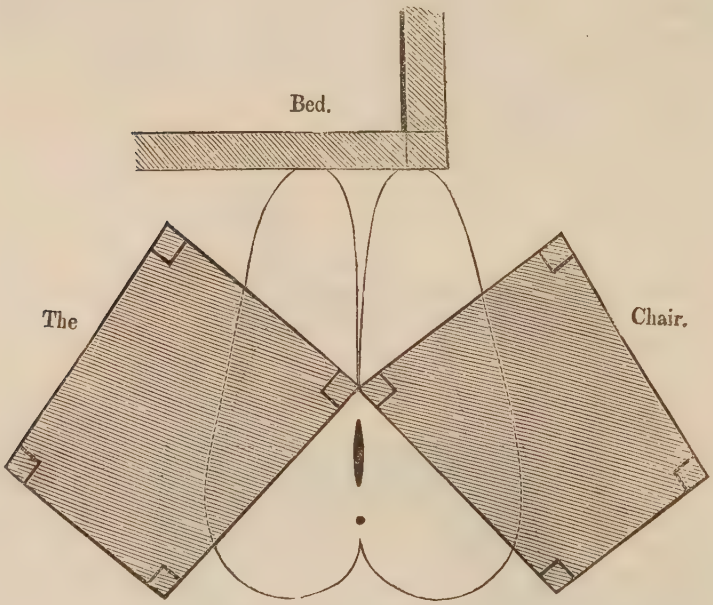
FIG. 6.



THE POSITION ON THE CHAIRS may be explained thus: Two firm chairs, of equal height, are secured to each other

in front, by tape or other strong material; their *backs* are then separated from each other one and a half or two feet, according to the breadth of the patient's nates. The chairs, to secure them from moisture, as also to save the patient's thighs from painful pressure, are covered by folded napkins; and it is further desirable that they be placed on the *left* side of the bed, *facing the footpost*, in order that the patient, at the proper time, may be quickly removed on to the bed. (*Vide* diagram.)

Fig. 7.



The woman's assent to the measure having been obtained, and the obstetric binder carefully secured round the whole of her abdomen, she is removed from the bed, and *seats herself well over or between the chairs.* When doing this, the assurance is given her that no exposure of her person, while thus situated, can possibly occur. Standing behind the chairs, the accoucheur is to take care that the patient's

dress is *free* and well drawn down; that her *nates* are projected a little *below* the plane of the chairs; that her *knees* are somewhat separated and pressed firmly against the framework of the bed, and her *feet* resting on a firm support.

Thus circumstanced, the woman is to bend forward and grasp firmly the footpost of the bed; should there be none, then the waist of an attendant, seated on the *side* of the bed, must be substituted for the same. The accoucheur, situated *behind his patient,* seats himself on a low chair or stool, or, if he prefer it, may kneel on a cushion placed on the floor. Thus circumstanced, his occasional examinations of the woman enable him accurately to note the progress of the labour, and at the proper time to have her removed to bed. For the sake of cleanliness, it is proper also to place an ewer beneath the nates, to receive the liquor amnii and contents of the rectum.

When the *perforated seat, with arms,* is the medium adopted, there is less necessity for the bedpost or friend in front, as the arms of the chair are giving firm support to those of the woman during the expulsive efforts.

Having premised thus much relative to the position of the patient, I must now remark that as it is *not* the design, so neither is it necessary or advisable to effect the delivery whilst she is seated *on* the chairs. I would lay great stress on this point, for *two* reasons. The first is, that, thus circumstanced, the perinæum cannot be so efficiently guarded from lesion as in bed; and secondly, the infant, when born, cannot be so conveniently received by the attendant in this position of the mother.

The rule, therefore, is, when the difficulty in the labour has been overcome, which is known by the ossa parietalia beginning to advance from behind the perinæum, the woman is to be removed forthwith to the bed, and placed in the ordinary parturient position. Some slight cessation from pain sometimes follows this removal, but, as a general rule, the head passes in a few pains, and the delivery is, ere long, effected with perfect safety to both mother and infant.

In *all* cases it is to be understood, before the patient is

placed on the chairs, that the presenting part (head or other organ) *is clearly within the pelvic inlet, and the os uteri dilated fully one half;* and further, that in every case a reasonable period has been allowed to the horizontal position, and its *failure* evidenced *ere* the measure is had recourse to.

The contra-indications to the sedentary posture in labour are one or more of the following:—1. *Systemic exhaustion,* or symptoms denoting its near proximity. 2. The existence of *inflammation* in any of the internal viscera, or parts more immediately affected by the labour. 3. *Serious uterine hæmorrhage.* 4. *The previous advent of puerperal convulsions.* 5. *Prolapsus of a pulsating funis.* 6. *The presentation of parts at the os uteri requiring version.* And 6. *The presence of extreme pelvic obliquity,* wherever situated.

The modus operandi of the sedentary posture and binder in labour, in so greatly expediting that process, is not inaptly illustrated by *the act of defecation, as performed under circumstances of difficulty and distress,* as, for instance, in cases of *obstinate constipation or dysentery.* In these instances the greatest amount of expulsive muscular effort, voluntary and involuntary, is put forth, of which the system is capable, in order to contract the abdominal space and force downwards the irritating alvine contents, first *into,* and then *through,* the pelvic cavity.

Seated on the chairs in the manner described, the same series of voluntary and involuntary muscular actions is induced and maintained as in difficult defecation, in addition to and in union with the powerful periodic and expulsive efforts of the *uterus.* The head and body are brought forward to an angle varying from thirty to forty degrees from the perpendicular, by which action the axes of the pelvic inlet and abdominal space are brought into perfect accord. *The hands, feet, and pelvis are becoming so many fixed points,* which are aiding the system in exerting itself to the very utmost in its expellent efforts. The result of all this is seen in the following important advantages, which are secured to the parturient female, viz.—1. Every available succour arising from *the force of gravitation* in the uterine

ovum. 2. The putting forth, under highly favorable circumstances, of the most energetic *muscular efforts* of which the system is capable. 3. The bringing, as before named, the pelvic and abdominal axes into the same plane or line of agreement. And lastly. The great support and energy imparted to the *fundus uteri and abdominal muscles* by the *obstetric binder,* suitably applied.

Of the OBSTETRIC BINDER, not only when used in connection with the sitting posture, but as an independent aid in the treatment of *lingering and impeded labour,* I have formed a much higher estimate than is accorded to it by the profession generally. I am accustomed to make frequent use of it *before* the birth of the infant, where the chairs are *not* called into requisition. I find it greatly excites the laggard and strengthens the enfeebled uterine energies, thereby expediting the progress of the labour to a very useful extent. The good effects of this agent in cases which are simply *lingering* are most admirable. A binder *which embraces the whole abdominal parietes within its grasp,* pinned on firmly and smoothly, imparts wonderful support and energy to the *fundus uteri,* where it is most needed; and the labour, which before its application had remained in nearly *statu quo* for several hours, will frequently be terminated in half an hour, or at most an hour, after its application. In such cases it is important that the uterus should be kept well closed by the hand (through the abdominal walls) for a short period after the uterus has expelled its contents; then a couple of folded napkins should be placed over it, and the binder tightened and pinned securely.

In impeded labours, where the resisting powers to the delivery are not very serious, the application of the binder to the abdomen will frequently suffice for the delivery of the woman. In these cases, the laying hold of the binder by the practitioner's left hand, and firm traction made during each expulsive effort, will most materially aid the delivery; the same precautions being taken after the birth to secure contraction of the uterus, the expulsion of the placenta, and the prevention of post-partum hæmorrhage.

I now pass on to notice, very briefly, *those* PARTURIENT CONDITIONS *in which the use of the sedentary posture and the obstetric binder are specially indicated.* In practice these will be found both numerous and varied, and to proceed from both mother and fœtus. They are the following: inefficient uterine action; arrest of the fœtal head, either from the mother's pelvis, or from malpositions of, or malformation *in,* the head itself; a too pendulous condition of the woman's abdomen; excessive rigidity in the maternal soft structures; obstructions to delivery from tumours or cicatrices; malpresentations (the breech or face); and, lastly, excessive distension of the uterine walls.

Time forbids my speaking of more of these than the two first named; the treatment of the remainder must be inferred, and not stated for the present.

Inefficient Uterine Action,

In its simple condition, is not a very frequent cause necessitating the conjoined action of the sedentary position and the obstetric binder; the means ordinarily adopted for exciting uterine action generally sufficing for the woman's safe delivery. If the agents had recourse to fail in their action on the uterine fibre, then the *abdominal support* added thereto gives great energy to the pains, and effects the child's birth. Should *it fail* (the woman's strength being good), the *seat on the chairs,* by bringing the fœtal head into immediate and sustained contact with the os uteri or floor of the pelvis (as the case may be), aided by the force of gravitation, quickly stimulates the uterus into energetic action, and the delivery, within a reasonable period, is effected. Take the following illustration.

CASE.—About midnight, September 11th, 1845, I was desired to visit, in consultation, a young person (æt. 18), in labour of her first child. Her attendant, Mr. H—, stated that his patient had been in labour eighteen hours. He had been in attendance nearly from the commencement. The

presentation was natural, pains frequent and good, but had declined greatly in frequency and power *during the last four hours.* The head cleared the os uteri at 5 p.m., being at the time well down in the pelvis, since which the progress of the labour had been very unsatisfactory. He stated he had sent for me for three reasons—1st, the evident decline in the woman's strength; 2d, the small progress making in the case; and 3d, the presence of some sanguineous discharge during the last three hours. He had procured his *forceps,* believing their use would be called into immediate requisition. The patient's pulse was found quick and feeble, and her countenance deeply flushed and anxious; thirst considerable, and lips puckered and black; urine discharged within a moderate period.

On examination, a scalp tumour was found between the labia majora, but not protruding externally; the head, during the pains, was acting slightly on the rectum and perinæum; arch of the pubis ample; external parts favorable to delivery; vagina hot and moist.

The weakened condition of the woman, with the presence of some hæmorrhage, seemed to contra-indicate the use of the chairs; nevertheless, after carefully observing the strength and frequency of the pains, with their effect on the head, I advised the sedentary position and abdominal binder. My views were quite new to Mr. H—, but he readily acquiesced in their adoption. Some cordial drink was administered, the patient's face and hands refreshed by a cold, damped napkin, and she was put in the sitting position; the hæmorrhage ceased entirely, the pains increased in energy, her spirits and strength revived, the case progressed, though but slowly, and within an hour and a half from her altered position she was safely delivered (in bed) of a full-sized, stillborn infant. The placenta was expelled naturally in ten minutes. The binder was readjusted and tightened, with a graduated pad placed beneath it, the cordial drink was repeated, and also an anodyne draught, and the patient left in a comfortable state.

She made an excellent recovery.

Arrest of the Head of the Fœtus

Is the next condition to be considered. It may occur at the pelvic inlet, within its cavity or at its outlet; and may arise either from a contracted or contorted condition of these parts, from excess in the volume of the fœtal head, normal or abnormal; or from tumours or cicatrices partially filling the brim, cavity, or outlet. In any and all of these conditions, before seating the patient on the chairs, the urine must have been evacuated within a reasonable period, a part of the head clearly within the pelvis, and the os uteri at least half dilated; and there must be the absence of those circumstances, before alluded to, which contra-indicate the practice. Whilst seated, occasional supplies of bland and nutritious food must be given, or the more generous stimuli of beef-tea, wine and water, &c., and in hot weather the smelling-bottle, fan, and damped towel to the face and hands, are very agreeable and useful agents.

If the case be *one of simply confined or but slightly contorted brim,* the good effects of the sitting posture are early and strikingly demonstrated, and equally so where the delay is arising *from excessive volume in the fœtal head.* The pains quickly become more frequent, more energetic, and more decidedly expellent. Our first evidence of progress consists in increased scalp tumour within the os uteri, which now expands rapidly; overwrapping of the ossa parietalia next follows, the os occipitis retiring behind them. The *head* steadily advances till it rests on the perinæum, the *scalp tumour* having begun to emerge beneath the pubic arch. This progress may have occupied an hour or an hour and a half. Should the woman now appear much fatigued, she may lie down awhile, under the promise, however, that she will again take her seat on the chairs, if desired. This resumption of the *horizontal condition* will demonstrate to us two important facts, viz.—1, that great progress has been made on the chairs; and 2, the inefficient character of the "pains" so long as the woman continues lying on the bed. Half an hour

usually suffices for recruiting the woman's strength, aided by some suitable nutriment; more time must be allowed, if needed.

The binder being readjusted and the chairs resumed, the pains return with redoubled energy, and the woman continues in the sitting posture till the head itself engages in the os externum, when, as the difficulty in the labour is now overcome, she is to be removed on to the bed, and there delivered. In *primiparæ* it will generally occupy from ten to twenty or twenty-five minutes before the head passes after lying down; this, however, is an advantage, as it allows of the more leisurely expansion of the perinæum.

The *time* required for the delivery will depend on the gravity of the difficulties to be overcome, the energy of the uterus, and the systemic powers of the woman. In a majority of these cases one or one and a half hour will amply suffice; some cases may require two or even three hours (including *two* rests on the bed) ere the patient is relieved. Beyond *three hours* it is not generally prudent to persevere, as the long-continued energetic uterine action, with the upright position of the woman, might, perchance, result in general exhaustion, uterine lesions, or puerperal convulsions. (Observe, though I name *these* as *possible evils*, I have never yet witnessed their occurrence where the chairs have been used.) If, after a fair trial of the means now recommended, they fail to give the desired relief, nothing is left us but to deliver by the forceps or crotchet, as the case may indicate.

Case.—In May, 1849, I was engaged by a Mrs. J— to attend her in labour in August following—third pregnancy. First labour was a case of cross-birth; fourteen hours' duration; infant stillborn. In April, 1848, she had her second infant; was in labour sixteen hours; had *two* medical attendants, who delivered her *by instruments;* child stillborn. As they told her she would not "get over it" if she had another full-grown child, her friends desired me to bring on premature labour. In June I examined her, and found the antero-

posterior diameter of the pelvic brim shortened about an inch. I declined rupturing the membranes. She fell into labour early on the 11th of August; I saw her towards noon, found os uteri open to the size of a shilling, head high up, its descent evidently checked *by the projecting sacral promontory;* the membranes had been evacuated naturally on the 10th. I saw her again at 3 p.m., and *found the labour urgent;* the os uteri open to the size of a half-crown-piece, disposed to dilate freely, and with considerable scalp tumour pressing through it; urine recently passed, parts cool, and secretion abundant. I put a *binder firmly round the body, and let her remain in bed,* hoping the natural efforts, thus aided, would, within a reasonable time, effect the delivery. After an hour and a half of *hard labour,* the head had scarcely advanced anything, but the os had opened to *half* its full expansion. *I now placed her on the chairs,* and though the force of the pains did not materially increase, their effect on the head was so marked, that at 5·15 p.m. (*i. e.* three quarters of an hour on the chairs) it was advancing under the pubic arch. I now removed her on to the bed, and in ten minutes she was delivered of a healthy female child. The placenta followed naturally in a few minutes, and the woman made an excellent recovery.

In confined Pelvic Cavity or Outlet,

Whether caused by a too straight condition of the sacrum, anchylosis, or excessive rigidity of the sacro-coccygeal articulation, or unnatural closing of the pubic rami, the plan of treatment now indicated will, in nearly all cases, prove eminently successful.

Case 1.—January 3d, 1860. Mrs. B—, second child, called me about 10 p.m.; found she had been in labour most of the day; the os uteri was half dilated, parts lax, and well lubricated; head presenting in first position. At 11·30 os fully dilated, pains strong and frequent, waters evacuated, and hind head touching floor of pelvis. I found

the ossa pubis (*rami*) *contracting the pelvic outlet;* by 12·30 (*nocte*) we had considerable scalp tumour, the hind head resting *above* the rami; pains, however, bringing it slightly between them, and leaving between it and symphysis pubis a *space* through which the finger passed freely. About 1 p.m. progress made, but trifling. I now placed her *on the chairs;* the pains mightily increased in energy, and in less than half an hour the head rested fully on the perinæum. She was now *lifted into bed,* and at 1·30 a.m. was delivered of a full-sized, living, female infant, with greatly elongated head. The placenta was cast off in fifteen minutes. My conviction is that the chairs saved this woman from two to three hours' strong labour, conserved her strength, and my own time.

N.B.—I delivered this patient about two years and a half previous, in her first labour; we had the same difficulties, which were safely overcome by the same means.

Case 2.—January 8th, 1860, Mrs. M—, second child. This labour was nearly the counterpart to the one just narrated, the difficulty being a narrowing of the *outlet,* from closure of the ischiatic and pubic rami.

I saw her at 11 a.m.; she had been in pain from early morning; the labour had but slightly progressed, head presenting, parts lax and well lubricated. About 4 p.m. waters broke naturally; os uteri half dilated, soft and expansible, *pains frequent and vigorous;* obstetric binder carefully applied. At 6 p.m. os fully dilated, hind head touched floor of pelvis. At 7·30 large scalp tumour, head but little advanced. I put her on the *chairs,* but she could not sit there, the position making her *feel sick;* she was therefore removed to bed. *Here I made the binder do the work of the chairs, i. e.* during every pain I made powerful traction by it in the direction of the pelvic inlet (by my left hand grasping the binder). Proceeding thus, at 8·30 p.m. she was safely delivered of a healthy, but rather small, female infant, with greatly elongated head. The placenta cast off in fifteen minutes.

N.B.—Three years previously this female was delivered

by another party of her *first* child, after a dreadfully severe labour of two days, a scalp tumour lying between the external labia full twelve hours previous to delivery, which, she states, was accomplished *by the fillet.* Infant was *still-born,* and she required the use of the *catheter* full five weeks. On present occasion we had occasion to use it about half a dozen times. Recovery perfect and rapid.

Having already exceeded the usual limits, I must not proceed further than to say, that in *mal-positions and mal-formations of the fœtal head,* in cases of *excessive rigidity of the soft parts,* and in several cases *of obstruction to delivery from tumours in the pelvis, in protracted breech cases, presentations of the face, &c.,* I have found the greatest assistance given from placing the woman between the chairs.

In conclusion, gentlemen, permit me to state that the practice advocated in this paper commends itself to our notice and favour from the considerations following, viz. :

1. *Its simplicity.*—It requires no complicated apparatus for its adoption, a couple of chairs and a couple of women (found in nearly *all* lying-in rooms) being the only requisites for its successful operation.

2. *Its entire freedom from danger, per se.*—On this point I can confidently affirm that, with the *guards* pointed out, it neither increases the tendency to hæmorrhage (but rather the contrary), neither does it unduly exhaust the systemic energy or in any way retard convalescence.

3. *Its great power.*—By providing the woman with *so many fixed points of support,* a mighty impulse is given to the motor parturient forces, and in this way obviates, to a great extent, the necessity for instrumental delivery. This is a very weighty consideration, especially to the young accoucheur who is unaccustomed to their use; and to the *country practitioner,* who, in cases of impeded labour, may be *many miles distant* from either professional counsel or extracting instruments, *it is valuable.*

4. Its adoption for a suitable period *tests early and fully nature's ability to effect the delivery unaided by obstetric ex-*

tractors, and thereby is enabling the accoucheur (where demanded) to adopt their use before the maternal tissues have become damaged by long-continued pressure. This is a highly important point, and marks well the value of the measure.

5. The woman herself *consciously experiences the benefit of the plan,* from the augmented power to *expel,* and the greatly accelerated progress of the labour. This is frequently evidenced by her desire to be reseated on the chairs, after a temporary repose on the bed, and her entreaties to be allowed to have the delivery completed while yet on the chairs.

6. Lastly. *As a great economist of professional time,* it strongly commends itself to our advocacy. *Time with us is precious capital,* the loss of which it is impossible to compensate. By the use of the chairs, we shall be not unfrequently saved many hours of weariness and anxiety in the parturient chamber.

CASES *illustrative of the advantages derivable from* SPECIAL POSITION AND OBSTETRIC BINDER *in a variety of circumstances.*

The following cases, though not numerous, will amply suffice to prove the *potency* of the practice recommended in the foregoing paper. They must be taken as *types* of hundreds of others attended by the writer during the last thirty years, with the same results as herein narrated.

CASE 1.—*Arrest of head from enfeebled action of the uterus.*—At midnight, on the 11th of September, 1845, I was desired by Mr. H— to visit a young woman, æt. 18, in labour of her first child, at 25, Brook Street. The patient had been ill about eighteen hours, and he had been with her nearly from the commencement. The presentation was natural, pains had been frequent and good till 8 p.m., since which they had gradually declined in *power,* but not in frequency. The head cleared the os uteri about 5 p.m., and

rested on the *floor* of the pelvis, since which period the progress had been but trifling. Mr. H— stated he desired my counsel, not only on account of the falling off in the pains (despite four doses of ergot), but chiefly on account of the decline in the patient's strength, as also the presence of some sanguineous discharge which had been going on during the last three hours. He had provided his *forceps,* believing their use would be immediately demanded. At first sight, the case seemed unsuited to the *sedentary posture,* on *two* accounts—1st, the feeble condition of the woman; and 2d, the presence of rather considerable hæmorrhage. The pulse was feeble, skin cool and clammy, lips parched and black, and countenance deeply flushed and anxious.

On examination, I found a scalp tumour between the labia majora, but not protruding beyond the head, but very slightly acted upon by the pains. Pubic arch ample, external parts favorable to delivery. Vagina hot, but moist, from sanguineous discharge. After observing carefully the strength and frequency of the pains, with their effects on the head, I gave it as my opinion that, under a *better position,* aided by an *abdominal binder,* nature would probably complete her work; and should she fail therein, we had the forceps at hand to aid her efforts.

My views were quite new to Mr. H—, but he readily assented to my propositions. Some cordial drink was administered to the woman, the binder properly applied, and she was placed *on the chairs.* The hæmorrhage ceased entirely, pains increased in energy, and in half an hour she was delivered (in bed) of a full-sized but stillborn infant. The placenta followed in ten minutes. Binder readjusted, with a graduated pad beneath it. Some cordial drink and an anodyne draught were administered, and the patient was left one hour after delivery in a comfortable condition.

Case 2.—*Confined inlet from sacral promontory.*—In May, 1849, Mrs. J—, a "factory" worker, residing on Sutton Bank, desired my attendance in her labour, expected in August following. Third pregnancy; says her first labour

continued only twelve or fourteen hours, at full term—was a case of cross-birth, infant stillborn. Thirteen months ago she had her second child, in Hull—was in labour fifteen hours—had two medical men in attendance—was delivered by instruments, the infant stillborn. Was told by these gentlemen, if she had another child "she would not see over it." Her friends desired me *to bring on premature labour*. In June I called on her, made an examination, and found the brim of the pelvis narrowed from *a falling inward of the sacral promontory*, but not so much so as to necessitate immediate rupture of the membranes.

Twice during the first week in August the woman was stated to be "in strong labour;" this proved fallacious, the pains each time being quieted by an anodyne draught.

Early on the morning of the 11th true labour came on, the pains increasing in frequency and force all the forenoon, head's descent into pelvis being prevented by the projecting sacrum, and os uteri open only to the size of a shilling. The waters had been evacuated naturally on the 10th. On calling at 3 p.m., I found the labour had become urgent, and I therefore remained. The os uteri was now open to the size of half-a-crown, and very lax; scalp tumour pressing through it; urine passed within the hour; parts cool, and secretion abundant. I put a binder firmly round her body, and let her stay in *bed*, to see what nature would effect in that position. At 4·30 p.m. the head had advanced but little; os uteri now half dilated. *I had her put on the chairs*, and, though the *energy* of the pains did not appear much increased, their *effects* on the head were so very decided that, at 5·44 (three quarters of an hour on the chairs), it had advanced beneath the pubic arch. She was now removed to bed, and in five minutes afterwards was delivered of a healthy female child. The placenta came naturally in ten minutes, the woman was left comfortable, and made a speedy and excellent recovery.

Case 30.—*Straitened pelvic cavity.*—One evening in

June, 1847, I was desired by Mrs. Craore, midwife, to visit her patient, Mrs. —, in Garden Place, Syke Street. She had been in attendance since morning, and said she had sent for me to quiet the fears of patient's friends, the labour only requiring *time* to complete it. I learnt the woman had had a large family, the last three labours being very severe, but ultimately completed by the natural efforts. I found the parts cool, secretion abundant, and urine voided about two hours previous; head in first position, within the pelvis, but not reaching the floor; great accumulation of scalp. For some hours pains had been both frequent and violent, but the labour had made but small progress. The bar to delivery consisted in *a large, knuckle-like projection of the last sacral vertebra,* reducing the pelvic capacity full one inch. At 6 p.m. we placed the woman *on the chairs,* and put on the obstetric binder. I staid till 7 o'clock, the head having made good progress; I then left, desiring to be sent for in two hours if the case was not over. Hearing nothing, I called next morning, and found that she had been safely delivered in three quarters of an hour after I left her, of *a large, stillborn child.* Recovery excellent.

Case 4.—*Confined pelvic outlet.*—November 14th, 1846, I was sent for by Mr. D. W—, to assist him with a case of impaction of the head.

I went at 8·30 a.m., and found Mrs. S. C— in labour of her *first child.* She had been ill for *thirty-three hours,* Mr. H— having been with her since the previous evening. I ascertained, on examination, that the *pelvic outlet was narrowed,* from an approximation of the ischiatic and pubic rami, and that the case was not one of impaction, but of *arrest* of the head merely. During each pain there was a small scalp tumour at the os externum, and the ossa parietalia were overwrapping each other considerably; head in the first position; maternal parts cool, and secretion abundant; two or three hours ago urine voided naturally; patient in bed, but had been *standing,* and also on the *chairs*

for a short time. Pains now were recurring every two or three minutes, but were short and ineffective.

At 9 a.m. we put on an *abdominal binder* and again *placed her on the chairs,* giving at the same time simple nutrient drinks. At 10 a.m. I left, the progress made in the labour being very decisive. At 12 a.m. I returned, and found she had been delivered *on the chairs* (contrary to my advice) a short time before my arrival. Placenta cast off naturally. The woman's recovery was slow, but complete.

Case 5.—*Contracted pelvic outlet.*—On September 1st, 1845, I was summoned to about seven miles distant, to a young female *in labour of her first child,* the gentleman officiating desiring me to bring with me my *obstetric instruments.* I arrived at 3 p.m., and learnt from him that the labour had commenced the previous evening; he had been in attendance since 2 a.m., at which period he found the os uteri open to the size of a half-crown-piece, and matters progressed so favorably that he hoped to be set at liberty by 9 or 10 a.m.

About 9 a.m. the head cleared the os uteri, and was well down in the pelvis; "from that period to the present, the pains had been both frequent and very forcible, yet the head had advanced but very slightly." The gentleman "considered *the case was demanding the immediate use of the forceps,* and should certainly have used them ere this had he had his own with him." The bladder had acted naturally within three hours; the countenance was deeply crimsoned, and the woman was bathed in profuse perspiration; pulse firm, and at about 95 per minute; spirits depressed, and in great alarm about the use of instruments; pains cogent, returning every four or five minutes. Patient now in bed, but had been in the *standing* and *kneeling* positions several times.

Examination.—Head in first position, resting on floor of pelvis, and slightly protruding from posterior half of perinæum; scalp tumour between the labia; *pubic arch* more nearly resembling that of the *male* than that of the female.

My friend and self agreed as to there being *contracted outlet,* but he thought the *shoulders* had also something to do with the difficulty. My expressed opinion that the patient might probably be delivered by the *natural* efforts, under the sedentary posture and abdominal binder, excited great surprise, but no objection was urged to a trial of these agents.

At 3·15 p.m. we put the patient *on the chairs,* where she remained an hour, the pains being equally frequent, and much more expellent than when in bed. The head made slow but steady advances, first in the axis of the cavity, protruding greatly the posterior perinæum and rectum before taking the forward turn; then it took the latter direction, expanding the perinæum proper. During the period named the patient was supplied with simple nutrient drinks, face and hands cooled with a damped towel, and during each pain firm traction made by the binder from *behind,* in the direction of the axis of the upper inlet of the pelvis. The patient was now permitted to repose awhile on the bed, the pains continuing equally frequent, but in their *effects* perfectly nugatory. Of this the patient soon became conscious, and desired to be *again placed on the chairs.* This was done; the head now sensibly advanced beneath the pubic arch, preceded by an immense scalp tumour; outer parts, being rigid, were well lubricated with bland oil. The ossa parietalia beginning to protrude externally, the woman was again assisted on to the bed, and in a few pains my friend Mr. J— presented us with a full-sized, living infant, partially asphyxiated from cerebral pressure, and the head was immensely elongated.

The delivery was effected at 5·25 p.m., being two hours from the adoption of our measures. Placenta cast off in a quarter of an hour. There was no subsequent hæmorrhage or other inconvenience, and the woman had an excellent recovery.

N.B.—After the delivery my friend expressed his admiration of my mode of delivery, which was to him perfectly novel, nor had he ever read of its adoption by others.

Case 6.—*Malposition of the head.*—October 2d, 1848, at 6 a.m., desired by Mr. R— to visit his patient, Mrs. S—, Old Foundry, in labour of her eleventh child. I found the head in the second position (face to the left acetabulum) and partially within the pelvis, having remained *in statu quo* the last three or four hours; pains now feeble and distant; scalp slightly corrugated; os uteri three fourths dilated; parts cool and well lubricated; pulse moderately firm and equal; mind greatly depressed. Gave a cordial drink, applied firmly the *abdominal binder,* and placed the woman on the chairs. The pains early became both frequent and effective, the head descended, and at 7·15 a.m. it was passing the outlet. The woman was now put to bed, and the infant delivered in a few pains. Afterbirth as usual. Recovery normal.

N.B.—Numerous cases nearly similar to the above have come under my care, having been treated in a similar manner, with equally happy results.

Case 7.—*Excessive size of fœtal head and rigidity of maternal parts.*—At midnight of November 10th, 1843, summoned in great haste to visit Mrs. G—, of Spencer Street, in labour of her first child. I did not arrive till 1 a.m., being at the time with another parturient female. I met Mr. G— on my way, almost frantic, and bearing a note from the attendant surgeon, desiring me to bring with me *my perforator.* Arriving, I learnt that "the patient had been in labour *fifty hours,* and he (the surgeon) had been in attendance about forty hours, during the last twenty-four of which the labour had been very severe; the os uteri had been long in dilating, and he had had the patient standing, on her knees, leaning against a chair, and on the bed. During the evening he had given one strong dose of ergot. Latterly the pains had failed, and had not returned within the last hour. Head had not perceptibly advanced during the last seven or eight hours. He had tried to introduce the lever, but, from the great impaction of the head, had failed." He added, "I have seen similar cases,

and am convinced nothing short of *lessening the head* will suffice for the delivery."

I found the patient in bed, on her left side, with good countenance; spirits not depressed; pulse about 90, and moderately firm; tongue slightly furred; rectum empty; urine not voided within seven or eight hours. On examination, found the parts quite dry, but not unnaturally hot; head well within pelvis, but not bearing on the rectum and perinæum. Outer parts disposed to dilate freely.

The case was evidently one of *arrest*, not of *impaction*, and caused by rigidity of os uteri and excessive size in fœtal head. The necessity for immediate delivery, *by lessening*, was now urged by Mr. ——, and his crotchet I found on the table ready for use. I pleaded for further *delay*, on the ground of the entire absence of *urgent symptoms*, either systemic or local. I now opened to him my plans, in which he fully acquiesced, though it was quite evident he had no faith in their efficacy.

The room was first cooled down, the patient's hands and face cooled in cold water, the urine was drawn off, and she had given her a cup of gruel containing a table-spoonful of brandy. She was now placed on the chairs, the abdomen having been previously bound by the obstetric binder. A friend was ordered to rub her abdomen gently, increasing the pressure during each pain. In five minutes we had a feeble uterine effort, followed by others at similar intervals. In half an hour they had become both frequent and thoroughly energetic, the head now pressing on the sphincter ani and posterior half of the perinæum. The outer parts were kept well smeared with Ol. Olivæ, and also the os vaginæ and inner parts of labia majora. The pains now became violently expellent, the head gradually emerging beneath the pubic arch, preceded by an enormous scalp tumour. The binder was occasionally tightened, the patient refreshed by cool drinks and the damped towel, and cheered on by the assurance of speedy delivery. In an hour and a half from the adoption of these means the ossa parietalia were emerging from behind the perinæum, *ergo* the patient was

placed on the bed, and in ten minutes was safely delivered of a very large male child, *stillborn.* It had evidently been dead some hours, and was greatly discoloured in those parts which had been in immediate contact with the uterine walls. The uterus contracted well, and *partially* protruded the placenta in half an hour; it required manual removal, being found firmly adherent. Uterus again contracted well, a folded napkin was put beneath the binder, which was properly readjusted, and in an hour from the delivery we left our patient both comfortable and grateful.

No bad symptom followed the delivery, and the patient recovered in the usual period.

Case 8.—*Arrest from excessive size of fœtal head.*—In July, 1848, at 9 a.m., I was desired by Mr. P— to visit his patient, Mrs. ——, in Charterhouse Lane, who had been eighteen hours in labour of her *first child.* On examination, I found a large head entering the pelvic brim, membranes ruptured, with large scalp accumulation; parts cool and moist; urine passed lately, and os uteri about two thirds dilated. There was no urgent symptom present, nor had been, though, to my surprise, I learnt that an attempt at delivery *by the forceps* had been already made, and this measure was again urged on my attention. I earnestly dissuaded from the use of any and all instrumental aid, and recommended patience, a firm roller on the abdomen, and putting the woman between the chairs. I called again at 2 p.m.; found the surgeon absent; patient in bed. The head was now filling the pelvis, the os uteri beyond reach, and the urine again passed naturally. I learnt, to my astonishment, that another futile attempt had been made to deliver the patient *by the forceps.* The surgeon was summoned, and shortly appeared, carrying with him *his instruments.* In the absence of bad symptoms I steadily discountenanced *all* instruments, especially as the labour was steadily, though slowly, progressing.

I again urged *patience,* the *sedentary position* occasionally, cool but nutritious drinks, a cool apartment, &c. I heard

nothing more of the case that day, but, on inquiry next morning, found the woman had been finally delivered *on* the chairs between 2 and 3 o'clock, a.m. Infant *stillborn;* recovery natural.

Case 9.—*Retarded labour from pendulous abdomen.*—August the 20th, 1848, at 9 a.m., was desired by one of my obstetric class to visit Mrs. —, in Chariot Street. I found, on inquiry, she had been in labour forty hours. On examination, the *fœtal head was found resting on the pubic symphysis,* and spreading over about two thirds of the periphery of the pelvic inlet. The pains were still frequent and strong, parts lax and of proper moisture and heat. Urine discharged lately. When under the pains, I perceived she threw her body very far forward, falling on her knees. In this case the delay had been occasioned chiefly by *pendulous abdomen,* and aided by the unfavorable position in which she threw herself during the pains. To rectify these conditions, I immediately pinned a broad and firm binder tightly round her abdomen, ordered her to bed, and to lie on her back with her nates elevated, and when the head should occupy the whole brim, to place her on the chairs. At 11 a.m. I called again, and found she had been just delivered (in bed) of a large, stillborn infant, having been previously *on the chairs.*

N.B—Two years previous, this woman had a similar labour under a medical student, who, after a protracted attendance sent for me. *I placed her on the chairs,* applied a firm abdominal binder, and within the hour she was safely delivered *on the bed.*

Case 10.—*Arrest of labour from face presentation.*—Early in the forenoon of November 21st, 1843, called to Mrs. S—, in labour of her seventh child. I found the membranes had ruptured spontaneously at 10 a.m. on the previous day, since which the pains had been regular, but feeble, till early this morning, when they became more urgent, but were confined solely to the pubic region; doubt-

less from the shoulder of the uterus being compressed between the symphysis pubis and fœtal head. These pains continued till noon, when they rapidly extended to the back. At 2 p.m. they were strong and expellent, the os uteri being half dilated, its lips thick but soft, and it was well within the cavity of the pelvis.

On examination, the case was found to be one of *original face presentation*, forehead to left acetabulum, and chin to right sacro-iliac synchondrosis. Head large, and wedged within the short diameter of the brim. At 4·30 p.m. the head was in nearly the same position as at 2 p.m., the pains strong and very expulsive, and had been repeated about every six minutes. The scalp of the forehead was protruded through the os uteri, which was now two thirds dilated; the pulse was good, and there were no urgent symptoms present. The abdomen had been firmly compressed by the binder since noon; this was now readjusted, and we got the patient *on the chairs*, under the assurance that it would expedite her delivery. In half an hour the head cleared the os uteri, and was beginning to act on the outer parts; she was therefore assisted into bed, and in two more pains the head was fully delivered, followed in due time by the body, placenta, &c., as in the best of labours. Recovery rapid and complete.

Case 11.—*Arrest of labour from rigidity of parts.*—On the 31st of October, 1858, I was desired to visit Mrs. B—, of Swanland, in consultation with my friend, Mr. Hobson, of Kinkella. It was a case of *primipara* in a strong young female, in which all the parts were very *rigid*, and had given way but slowly. Mr. H— had been in attendance several hours. The head was arrested low down within the pelvis, a scalp tumour forming in the outlet. The labour had already extended to near thirty hours, and for the last five or six had made but very slight advancement. After due deliberation, we put her on a broad binder and placed her on the chairs. Things now rapidly improved, the head steadily advanced, and in one hour from sitting down we

had to remove her to bed, when, in a few more pains, she was safely delivered of a full-sized, living infant. Placenta thrown off quickly. Recovery rapid.

Cases 12 and 13 will be found incorporated in the paper itself; they were cases of deferred delivery from *contracted outlet.*

Duration and Results of 700 cases of Labour, attended by R. H., 1855-59.

Of these there were	*multiparæ* . . .	567
„	*primiparæ* . . .	133
		700

In the *multiparæ* the average duration of labour was nine hours and three quarters. In the *primiparæ* it was thirteen hours and three quarters, being four *hours in excess of the multiparæ.*

The *instrumental deliveries* in these 700 cases were 6; or *one* rather in excess of every 116. They were all short-forceps cases. *Five* of them were in *primiparæ,* of which 4 were from confined pelvis and *one* from puerperal convulsions. The case of *multipara* was from malposition of a large head in the *brim* of pelvis.

The *deaths* occurring within the *month* from labour were 8, or *one* slightly in excess of every 87. The causes of fatality were these, viz.—*one from carcinomæ mammæ of both breasts*; the patient succumbed about one month from labour. *Two from low fever,* caught after coming down stairs; both died about three *weeks* from labour. *Three from the effects of hæmorrhage, one* seven days after labour of hæmorrhagic fever.

N.B.—I was called to assist in the first case only when the patient was *in extremis. The second case* was attended in labour by a friend. A considerable draining from uterus continuing, at end of the first week I made an examination,

and found some placenta remaining ; it was removed, and the hæmorrhage ceased, but in four days *was renewed from the lungs ;* patient died a fortnight after labour. *The third case* was fatal three weeks after labour, from effects of *post-partum* hæmorrhage in a broken-up constitution, *from excessive drinking.*

Two cases were fatal from puerperal peritonitis, both after *first labour* of a strictly natural character.

HYDATIDIFORM DEGENERATION OF THE OVUM.

BY

GRAILY HEWITT, M.D., M.R.C.P.,

PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; LECTURER ON MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN AT ST. MARY'S HOSPITAL MEDICAL SCHOOL.

Read April 4th, 1860.

THE specimen exhibited was presented to the author by Dr. R. Uvedale West, of Alford, in whose practice the case occurred.

The history of the patient, the particulars of which were kindly supplied by Dr. West, was as follows:—She was the wife of a shoemaker; her age 33; married ten years ago; catamenia never regular before marriage, the interval varying from six to eight weeks, but after marriage the discharge occurred only at regular intervals. She has had four children, born respectively, February 1851, October 1853, April 1856, June 1859. The first child was suckled one month; it then died. The second child was suckled a year. The third, a year and nine months. The fourth child, born in June, 1859, lived only nine weeks; it was suckled during that period.

On March 2d, 1860, the specimen exhibited was expelled from the uterus. During the interval between the death of the last child (July 1859) and March 2d, 1860, her symptoms were the following:—Six weeks after the child's death a discharge, considered by the patient to be of menstrual character, occurred; a month afterwards, again; five weeks later, again; six weeks later, a fourth time; then again after a rather longer interval. Each time, however, the discharge only amounted to a "show." There was, during these

months a "sinking weakness of stomach," which the patient would have considered, from her former experience, as indicative of pregnancy, had it not been for the fact that a discharge, *apparently* menstrual, was the means of inducing her to set aside this view of the case. She considered she was menstruating, though irregularly.

Three weeks previous to March 3d, 1860, hæmorrhage of uterine character set in, and continued with intermissions, during that period. At the end of that time a degenerated ovum was expelled from the uterus. The patient subsequently did well.

On examining the specimen forwarded to me, I found that it was about the size of a goose's egg, and that it consisted of an ovum in an advanced stage of hydatidiform degeneration. The mass had apparently come away altogether, but during the process of expulsion it had been much torn, and, in addition to this, inverted. With care and the exercise of a little patience it was possible to restore the specimen and to place the parts in the normal relation one to the other. In the restored condition it was now exhibited (see drawing accompanying).

There was no trace of an embryo to be discovered. The mass consisted almost entirely of the decidua uteri and of chorion villi in an advanced stage of hydatidiform degeneration. The decidua uteri was everywhere greatly thickened, measuring from one third to half an inch thickness; it formed a fleshy-looking bag, open below at the situation of the cervix, and interrupted above, so to speak, by the altered chorion villi, the latter projecting in masses like strings of oval beads or small currants from the part of the ovum answering to the placental site, formerly the decidua serotina. Masses of altered chorion villi also projected into the cavity formed by the decidua.

The hydatidiform bodies consist of oval or round bladders of various sizes, the largest half an inch long, and connected one with another by intervening pedicles, the pedicles themselves arising from a thin membrane. A few of the bladder-like bodies are detached from the rest, ap-

pearing to grow outside of and through the decidua at a little distance from the remainder, as seen in the drawing. The amnionic cavity appeared to be obliterated by the pressure of the growing masses.

In this specimen is exhibited a much more advanced stage of the condition of the ovum described by me in Vol. I of the 'Obstetrical Transactions,' the difference being that, in the specimen formerly described, the ovum had only been retained in the uterus a short time after the hydatidiform degeneration had commenced. In the present instance, as would be easily intelligible on comparing the two specimens together (see Plate IV, 'Obstetrical Transactions,' Vol. I), the position of the parts had become changed, owing to the increased bulk consequent on the *growth* of the chorion villi and their conversion into bladder-like masses, some of them as large as currants. The vesicular bodies formed in the aggregate a considerable bulk, and their enlargement was attended with two effects—first, the portion of the ovum the seat of the change tended towards the centre of the uterus; and, secondly, the uterus itself increased in size. The chorion villi which became changed into these bladder-like bodies were situated, it must be recollected, originally *externally* to the decidua, forming together with the decidua serotina the part of the ovum which would become placenta (see Plate IV, 'Obstetrical Transactions, Vol. I). Why it was that the relation of the parts became altered as the hydatidiform change advanced would now be evident. While the growth remained in the uterus the mass of altered villi was doubtless surrounded almost entirely by the decidua, the cavity which is shown almost empty in the accompanying drawing being filled by these bodies.

In the further progress of the case, supposing that the ovum had not been expelled so soon, the vesicular masses would have tended still more towards the cervix uteri, and their successive rupture would have occasioned discharge of their fluid contents; in other words, the watery, alternating with bloody discharges usually present in the advanced stage of the affection, would have been noticed.

The bladders themselves consisted of two layers enclosing a fluid, the outer was in some instances ruptured, leaving the more transparent inner covering exposed.

The extreme thickness of the decidua uteri is noticeable. The structure of this portion of the specimen appeared nearly identical with that of the decidua uteri of normal pregnancy, and the orifices of the tubular glands were evident on the internal surface. It appeared as if the whole had maintained an intimate vascular connexion with the uterine tissue.

With reference to the nature of this curious, but not very infrequent, morbid condition of the ovum, little remains to be added to what I have stated in a former paper read before the Society. The embryo, as I have there pointed out, appears to perish first, and at a period when the chorion villi have formed for themselves a tolerably extensive connexion with the surface of the uterus. These villi continue to grow, but not to develop; their growth resulting in the production of the bead-like clusters so well depicted in the drawing, and which are really membranous bags filled with serous fluid. Traces of the embryo are sometimes present, but not when the mass has remained for some time in the uterus. There is no evidence that the chorion villi become altered previous to the death of the embryo. Analogy and the results of careful microscopic and anatomical examination seem to show that the first in the chain of events is the perishing of embryonic life. Why in one case the ovum should be retained for a short, in another for a long, period, seems to be a matter dependent on accident. The expulsion of the uterine contents will take place early if any circumstance capable of rousing the uterus into activity occur. Otherwise a passive, slow increase in the growth of the mole, and consequent enlargement of the uterus, may go on for several months. With regard to the symptoms, they are exceedingly irregular, as this case demonstrates. The patient thought she was not pregnant. Alternate watery and bloody discharges have been considered pathognomonic of this condition, but it does not appear that this is true,

for, on the one hand, those very symptoms have been known to be present in cases of polypus uteri; and, on the other, as has been shown, it is only when the bulk of the bladders drives them towards the cervix uteri that the watery discharge consequent on their rupture can be expected to occur.

DESCRIPTION OF ACCOMPANYING PLATE.

The drawing represents the entire mass in its restored condition, and of the natural size. The cavity formed by the decidua, here shown as empty, was originally occupied by the hydatidiform bodies.

Cyp Clérevaux del & lith

W West imp

CASES

OF

MENORRHAGIA

TREATED BY INJECTION,

OR

THE REMOVAL OF THE UTERINE MUCOUS MEMBRANE BY THE GOUGE, OR BOTH MEANS COMBINED.

BY

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Read April 4th, 1860.

Although it is not always distinctly stated, in all the instances here detailed, whether as out-patients at this hospital or at some other, the usual treatment for menorrhagia had been fully carried out, and failed. Purgatives, especially to remove hepatic or uterine congestion, were freely used. Again, these cases were not purposely selected from among the most successful but because fair examples of menorrhagia, which having resisted the usual remedies yielded to the mode of treatment now recommended.

Case 1.—S. C—, æt. 46, admitted June 3d, 1859. She is a tall, dark woman, merely engaged in her domestic occupations; twice married, the first time twenty-one years ago; her husband died twelve years after; she had three children by him; the eldest is now eighteen, the youngest thirteen; married a second time fifteen months ago, but has had no children by her second husband. Resides in Hampstead Road,

on a damp, clay soil; generally lives well. She has generally had good health, chiefly suffering from nervousness; had leucorrhœa during the ages of seventeen and twenty-five, when she began to have children. During the last twelve months it has recurred, always in larger quantities during the catamenial intermissions, assuming sometimes a yellow colour, and staining her linen. Catamenia appeared between the ages of sixteen and seventeen; duration, three days; regular till within the last six months, except during the last three periods; has never passed clots.

Present attack.—Was very regular up to July last, when, after moving from Holborn to the Hampstead Road, the catamenia came on so abundantly that she was obliged to call in medical aid. Under the use of cold cloths, acids, and finally plugging, the hæmorrhage was arrested at the end of a week. A week afterwards she went to Ramsgate, where she remained nine days. Directly on her return to London, after some violent straining, the hæmorrhage recurred; this lasted three or four days, and was again arrested by medical aid. From this period she has continued regular as to time, but with a much larger flow, seldom passing clots, although what she passes coagulates after standing. She is now very much weaker; the breasts have considerably enlarged.

Examination.—Left labium much enlarged; there appears to have been rupture of the perinæum; parts in a very relaxed state, the largest-sized speculum admitted with the greatest ease; uterus enlarged; os completely closed up by one or more polypi, which render the passage of the sound extremely difficult. The polypi at the orifice were removed; then, with great difficulty, a sponge-tent, of small size, was introduced. This process was repeated daily up to the 11th, by which date the largest-sized sponge-tent was passed up. During the whole of this period the only discharge was a simple, sanguineous ichor.

11th.—The cavity of the uterus being completely dilated, so as to admit easily the introduction of the index finger within the cavity of the uterus, when the organ itself was

pulled down, on the uterine mucous membrane several small polypous growths, of about the size of peas, were detected within the cavity; these were scraped off, together with mucous membrane, with the curved gouge. No tincture of iodine was injected, as the patient was expecting the catamenia the next day.

12th.—No flooding, but catamenia present.

On the 15th catamenia had ceased, and she was discharged.

Dr. R. heard of this case a considerable time afterwards; she had continued perfectly well; no hæmorrhage had occurred.

This case is one in which the simple plan of treatment was completely successful. No injection was used, in the fear of arresting the proper period.

Case 2.—Mrs. P—, æt. 34, admitted February 21st, 1859, of a sallow complexion, married fifteen years. Has had fifteen children, all born alive, eight only now living, the youngest six years old; has lived in London sixteen years; has always been weak and in bad health. Three years and a half ago first commenced to be irregular; the catamenia were absent for three months, then reappeared, then were again suspended during four months, then again reappeared, then intermitted for six months, when she consulted a medical man. Under his care these recurred for a time, then stopped for another six months, when she again sought medical advice. The courses did not, however, reappear until four months, when she went to reside at Bow. This was about the middle of December, 1857. At that period the catamenia lasted on her one week, and recurred fortnightly in large quantities. She was admitted as an out-patient to the Samaritan Hospital, under Mr. Millar, the house-surgeon, in January, 1859; she was then very pale and weak, menorrhagia being very severe, with pains in the back and lower part of the abdomen. Not improving readily, she was admitted as an in-patient to the hospital on February 21st. She was then pale, emaciated, very weak, and low spirited; menorrhagia abundant.

Uterine examination revealed nothing very remarkable, except a flabby state of the parts, the introduction of the sound increasing the hæmorrhage; a sponge-tent was at once used, and she was ordered to keep quiet, and in bed. The sponge-tent was regularly introduced up to the 26th, when she was, in addition, put on the oxide of silver and Indian hemp. The hæmorrhage was stayed during the presence of the sponge-tent, but always recurred after its extraction. On the 28th, the removal of the sponge-tent was followed by the expulsion of a large clot. The uterine mucous membrane was now scraped off with Dr. Simpson's instrument, followed by the injection of Tinctura Iodini co. There were no polypi, but merely softening of the mucous membrane. Ordered the following:

℞ Achill. Mill., ℥iss;
Pot. Bitart., ℈j;
Hyd. Bichl., gr. $\frac{1}{16}$; ter die.

From this time she gradually improved, the symptoms observed first being merely pain in the lower part of the abdomen, which was removed by a couple of aperient pills. From the 3d of May to the 10th she had a slight catarrh, accompanied by a pain in the chest, which was removed by ordinary treatment; the uterine pain relieved, when it occasionally occurred, by morphine suppositories. On the 21st, an ordinary and moderate catamenial period had occurred, with but little pain, and she was discharged cured.

This patient I have seen since, and she continues well. The case is one of those obstinate cases of menorrhagia where no polypi exist, but where the blood is apparently secreted from a villous membrane. Remedies, in this case, at most did only temporary good, and the constant recurrence of the flooding was such as to justify alarm in relation to the ultimate issue of the case, if not speedily and permanently arrested. Fortunately the means taken were blessed, and proved successful.

Case 3.—E. L—, æt. 22, married; admitted March 7th,

1859. Of a brilliant complexion; married two years and a half, but has no children; accustomed to live well; cheerful; has resided in an airy part of Camberwell, and has gone to the seaside regularly every year. Has always enjoyed good health, and, in spite of the menorrhagia now present, is pretty strong. First had menorrhagia two years ago, which followed an attack of *metritis*. For the first year she had a slight, red discharge, continually present, but which increased at the catamenial periods. In January, 1857, first had flooding, losing a large amount of blood. This was arrested by ice, vinegar, and cold water, after three days. From this date she usually had flooding at each period. In August, 1858, she was admitted as an in-patient into a large metropolitan hospital. Here, after examination with the uterine sound, frightful hæmorrhage supervened, which persisted for days, and left her very weak. She left the hospital in no way relieved. The menorrhagia continued without any intermission, more or less, until about two months since, when it ceased, and she has been unwell ever since to about the same extent as during ordinary health.

Present state.—She dreads very much an examination, stating that it always brings on fearful flooding.

Examination.—Cervix uteri very much congested, os dilatable; no polypi were visible. In fear of hæmorrhage, the sound was very carefully and gently passed, but it was followed, however, by a copious flow of blood. The vagina is small, and situated rather more posteriorly than usual; sponge-tent introduced daily. On the 9th, it was found easily introducible as far as the inner os, but there met with an obstruction. On the 15th, the uterus being sufficiently dilated, and the organ being pulled downwards, I was able to introduce the finger within the cavity of the uterus, and having felt a polypus, removed it with a curved gouge, but did not scrape the mucous membrane, injecting, afterwards, Tinctura Iodini co. into the cavity. On the 16th, there had been very little hæmorrhage, but she stated that the catamenial period was due.

23d.—The catamenial period has occurred since last date;

she was unwell for three days; she complained of hæmorrhoids. Ordered

Pot, Bitart., ʒj;
Pulv. Jalapæ,
Pulv. Piperis Nigri, āā ℈j;
Theriaci, ʒij; t. d. s.

March 25th.—The uterus having been again dilated by sponge-tents on the previous days, I again introduced Simpson's scraper, and removed part of another polypus, injecting the Tinctura Iodini co., and leaving a piece of wool soaked in the same within the cavity of the uterus. There was but slight hæmorrhage. On the 26th, tincture of iodine again employed; on the 29th there was no hæmorrhage, but a good deal of yellow discharge from the uterus. As she complained very much of the confinement in the hospital, she was allowed to go out for a fortnight.

Readmitted April 12th.—During the fortnight she had been absent she has had a continual yellow discharge, sometimes containing blood, but she states she has never lost less blood than during her absence. On the 13th, a sponge-tent was introduced, but on the 14th, it being the catamenial period, it was withdrawn. On the 16th, there was considerable pain in the abdomen; the flow was less than usual. On the 19th, it was considerably decreased; she was up and walking about; took two pills last night to relieve the bowels; she states, however, that she has passed a few clots. On the 20th, the catamenia ceased, but there was some vomiting. On the 22d, the sponge-tent was again introduced. On the 23d, repeated; still slight sickness. Tent reintroduced on the 24th; sickness less; hæmorrhoids troublesome. On the 25th, a full-sized tent was introduced. On the 26th, the membranous lining of the uterus was completely scraped off; another small polypus, about the size of a large pea, apparently quite upon the fundus, was removed also. Afterwards, Tinctura Iodini co. was injected; there was considerable pain after the operation, which was, however, readily relieved by opium. She was rather restless for the next two days, and on the 29th was hot, feverish,

thirsty, complaining of a good deal of uterine pain; pulse rapid.

There was very little discharge from the uterus since the operation. On the 30th, the fever had diminished, and by the 2d of May she appeared to be free from pain or anorexia, complaining chiefly of weakness. Ordered a wineglass of brandy daily; quinine, with mineral acids, with the infusion of achillea. She gradually improved under this treatment, and left the hospital on the 6th of May, cured. She has been seen several times since, indeed, within two months back, and is quite well.

This case presents several points of interest—the coexistence of several small polypi high up, and the copious hæmorrhage following the introduction of a sound. The more timid treatment (which was adopted in the fear of hæmorrhage similar to that which had occurred to her in a large metropolitan hospital, and a recurrence of which appeared probable after a similar experiment), in the present instance proved only partially successful. Yet every time the introduction of the sponge-tent controlled the hæmorrhage. Although but one polypus was felt after the first dilatation of the uterus and removed, the subsequent treatment proved that others existed, or at least were speedily reproduced. This speedy reproduction is a point open for further inquiry, and leads to a suspicion that these small polypi are only single, hypertrophied villi of the ordinary menorrhagic membranes. If subsequent experience confirms these suspicions, it at once justifies the bolder treatment in most cases. Time would have been saved by its adoption in this case. The feverish excitement subsequently was marked, yet not such as to give anxiety. The case is also a good example of the failure of injection by iodine or of removal of polypi singly, and their entire success when combined.

Case 4.—E. P—, æt. 45, admitted February 2d, 1859. Complexion dark; skin extremely yellow; lips blanched; dark circle round the eyes; intensely nervous; by occu-

pation a charwoman, although she has been a general servant for six or seven years before. Has been married fourteen years, and has two children. For the last seven or eight years has lived very indifferently, having bad food and clothing. In London all her life. Both parents dead; her mother died of womb-disease, her father of epilepsy. Has had jaundice twice, once being confined to her bed for three weeks. She was comparatively healthy up to about two years since, when she was attacked with flooding, which persisted for three weeks. She did not lie up for it, but took steel, under the employment of which she recovered. She continued well up to January, 1858, when she began to lose blood per vaginam, clotted and dark-coloured. This has continued, off and on, until the present day, the longest period of comparative cessation being three months. Catamenia first appeared at fifteen, continued for a twelve-month, then ceased, and did not again occur till she was twenty. Lately she has been very irregular, the catamenia lasting upon her as long as three weeks, sometimes persisting up to the time when the next period would have been due. The discharge neither is nor ever has been offensive.

Present state.—Countenance expressive of misery; lips blanched; conjunctiva slightly tinged yellow; tongue clean; appetite good. She is much troubled with thread worms; a little pain is felt at the lower part of the abdomen which is more or less constant, and relieved by lying down. There is a hernia on the left side, which has existed for the last fifteen years, brought on by lifting up a heavy trunk. She has worn a truss for the last ten years. She was first admitted as an out-patient to the Samaritan Hospital, and treated by purgatives and other measures, with but little advantage. To the touch, no polypus could be felt, but the os uteri was unusually patent.

Examination, made February 4th.—Vulva very bloody, situated very posteriorly; os uteri visibly patent, much blanched; sound introduced the natural length, no increased flow of blood following its introduction; the whole of the external parts were saturated with blood. A sponge-tent,

two inches long by about half an inch, was introduced. Ordered oxide of silver, three grains, and extract of Indian hemp, half a grain, three times a day.

February 6th.—Dilatation being now complete as far as the internal os, Dr. R—, on examination, discovered a small polypoid mass, about the size of three peas, within the cavity of the neck. A little tincture of iodine with water was injected within the uterus; sponge-tent reintroduced.

On the 11th, the internal os was not sufficiently dilated to allow the passage of the finger within the cavity of the fundus. The attempt of pushing the finger upwards gave great pain. In the evening she was slightly feverish. Ordered a suppository containing a grain of morphine.

On the 12th, pain less.

14th.—Sponge-tent reintroduced.

15th.—One polypus removed, followed by injection of Tinct. Iod. co. Ordered the following:

Hyd. Bichl., gr. $\frac{1}{12}$;
Ammon. Hydroch., ℈ss;
Inf. Gent., ℥iss.; ter die.

On the 16th, there was a slight amount of hæmorrhage.

On the 18th, another small polypus removed.

From this time all hæmorrhage ceased, and she continued pretty well, except that she had some pain for a day or two in the back.

On the 25th, she was thought to have caught cold; jaws were almost fixed; bowels costive; glands of the neck were also much swollen; she was freely purged, and these symptoms passed away.

On the 2d of March, she was discharged cured, there being no hæmorrhage of any kind. This woman has been seen about a month since, and states she has continued well ever since.

Remarks.—The above case was remarkable for the pallor and general anæmic appearance. She had been freely treated as an out-patient, but with no success. One point is also

brought out in her case—the resistance of the internal os to dilatation. Although the sponge-tent was pushed in readily to a full extent, it seems to have slipped out in part, and thus complete dilatation of the entire cavity was delayed. So soon, however, as this was effected the cure was easy. Another point of interest are the symptoms about the jaw. Were they any way related to tetanus? It is believed not, the enlarged glands explaining the fixed condition of the jaw, and being foreign to tetanus. The symptoms were ascribed to cold, and readily yielded to free purging.

Remarks.—The treatment by injection or by the uterine gouge in menorrhagia, singly, have been in vogue for several years, but neither have received that support from the British profession to which I think they are entitled.*

This has arisen, I presume, because the modification of these plans which I now recommend, and which forms the original portion of this communication, was not observed. Again, I do not claim to be even the inventor or author of this modification. The injection of the uterus by astringent liquids, or the scraping of the uterine mucous membrane by the gouge, were, as separate operations, first introduced by my colleague, Dr. Savage, in the Samaritan Free Hospital. His uniform success led me to adopt it also, although I used stronger astringent solutions, and occasionally injected immediately after using the gouge. It is generally believed that to inject within the uterus any astringent injection is calculated to bring about peritonitis, and several cases of death from this cause, as a result of this treatment, have been quoted. It is unnecessary here to cite the authorities for this opinion. But as it expresses the opinion of modern accoucheurs, that of Dr. Simpson may be here given, who, in his late admirable lectures, published in the 'Medical Times and Gazette,' writes as follows:—"But, mark you, never think or dream of throwing liquids into the interior of the uterus by means of any injecting apparatus, for severe

* 'Lancet,' Vol. ii, 1853. Dr. Tilt, on "Recamier's Curette."

and fatal influences are very likely to ensue." ('Medical Times and Gazette' for March 5th, 1859, p. 232.) And again: "The consequences of injecting fluids into the cavity of the womb are so often dangerous and deadly, that the practice has now been given up, I believe, by all accoucheurs." (Ibid.) I feel very diffident in venturing to controvert so high an opinion. I admit these results, but think they depend not so much on the injection *per se* as upon the *modus operandi.* I think the common supposition that, in these cases, some of the fluid penetrates up through the Fallopian tubes into the peritoneal cavity, is not proved, except a force capable of rupturing the organ itself, were used because, precisely as in the case of the glottis, a contraction of the muscular structure would take place around the tube, and thus no entry of the fluid can occur.

Indeed, Dr. Simpson himself seems to doubt this transmission upwards. When speaking of the fatal results due to injections, he adds (ibid., p. 232)—"Such a result *may,* perhaps, be caused by the fluid running through one or other patent Fallopian tube, and escaping into the peritoneum; *more probably,* it may be due to laceration of the mucous membrane, and entrance of the fluid into one or more of the uterine veins." I had an opportunity, however, when in Vienna, of seeing this fact proved by an experiment. A woman, the moment after her death, was brought down into the dead-house, the abdomen opened, and the uterus exposed before the irritability of the muscles had been destroyed. Dr. Ciari (the late professor of the Secret Obstetric Department, and one of the physicians to the division for diseases of women in the Allgemeine Krankenhaus) having placed the end of a powerful syringe within the uterus, and secured it there, attempted by main force to force up a quantity of fluid through the Fallopian tubes, and utterly failed; and yet, so far as one could judge from her antecedents, there was no reason to suppose that these were impervious. If the ordinary precautions are employed which are commonly taken when injections are given, no fluid could thus penetrate into the peritoneal cavity. Peritonitis, if it occur,

would rather be due to *sympathy* of neighbouring parts or rupture of the uterine surface extending within the veins. But if *sympathy* was the common cause of peritonitis, why should not solids, liquified, as they must be, by the uterine discharges, not give rise to it also whether when applied to a uterine mucous membrane or an ulcer of cervix? The absorption by a ruptured vessel appears thus more probable. We have an example of this kind of extension in those cases of metritis which occur after labour, and where the inflammation extends to the peritoneum, not through the Fallopian tube on its fimbriated extremity, but in the neighbourhood of the broad ligaments. Again, to set up this inflammation by sympathy, within the uterus, the injection must be more or less retained for a time, or very acrid in kind.

These facts being premised, it follows that, if any injected fluid *is not long retained within* the cavity of the uterus, no bad effect will follow. Experience, however, proves that if, through any untoward accident, it is so retained, then it will give rise to intense pain, and, as a result, inflammation may be expected to follow.

I remember on one occasion operating upon the uterus of a young woman in whom, after a very bad labour, occlusion of the cervix had taken place. Having, after successive operations, restored the canal and dilated it, I found a large cavity behind, into which the sound could be freely turned. With a view of removing from its contents any offensive fluids contained, I injected within the cavity about five ounces of lukewarm water. Owing, I presume, to the weight of this water retroverting the organ, I was a little annoyed to find that the fluid did not return. It produced excruciating pain for about an hour, when I administered a scruple of laudanum. In a few minutes the whole contents of the uterus were ejected, as it were by a contraction, and the result was complete disappearance of all pain. It can be readily understood that if plain water could produce this pain, *à fortiori* would an astringent injection, and it can be easily imagined how, if this pain and irritation were prolonged, inflammation of

the organ, and, by sympathy, of the peritoneum, would most likely occur. The above case also illustrates another practical point, namely, the danger of inflammation is at once obviated if the fluid have free egress; hence the safety, indeed, actual necessity, of never injecting the uterine cavity until, after due dilatation by sponge-tents, a way is provided for entire egress of the injected fluid.

But sponge-tents act in another way which ensures safety. The presence of a foreign body within the uterus, as in other instances, sets up a certain amount of limited adhesive inflammation in the immediate tissue around, so that an injection subsequently applied does not penetrate within the veins. When sponge-tents have been applied for three or four days consecutively, I have never seen any bad effects follow from the use of injections, and it is to this modification of treatment by injection that I think the chief merit of Dr. Savage lies. When the treatment by injection was followed at first, Tr. Iod., with four, three, two, or one part of water, was used. No evil results following, the undiluted tincture was tried, then the Tr. Iodin. co., then a strong solution of tannin; but more lately I have used, with perfect success, the Tr. Ferri Muriatis. Indeed, with a widely patent os, it is extraordinary what an amount of irritation the mucous membrane of the uterine cavity will bear. M. Huguier assured me that he had, on one occasion, accidentally broken an entire piece of lunar caustic within the womb, where it had remained, and yet nothing but colicky pains were complained of for the next day. I have frequently so cauterized the lining membrane to induce the catamenia, and the plan pursued by Dr. Simpson, of introducing within the cavity powdered lunar caustic, with the same object, is so far confirmatory.

The instruments that have been devised with a view of scraping the lining membrane of the uterus are various. The first is Recamier's *curette,* consisting of a circular piece of steel, terminating at each end by a blunt gouge, with different amount of curvature at either end. Another instrument, devised by myself, in which the curvature is smaller

at the extremity, but one of the gouges much broader, is the modified form I employ.

Simpson's uterine scraper is too well known to require description here. Sir Charles Locock's gouge, figured in the 'Medico-Chirurgical Transactions,' vol. xxxi, p. 173, in like manner, from its general use, calls for no further definition.

Another instrument, also a modification of my own, although suggested by my colleague, Dr. Savage, consists of a spoon-shaped portion, the most convex part of which has been cut off, fixed at the end of a long, steel rod.

It is difficult to conceive a more judicious instrument than that of Sir C. Locock in cases where a polypus can be felt or seen, or in cases where there are but one or two; but where some twenty or thirty may exist; and where some may be close upon the fundus uteri, the fear is, except in the hands of the very skilful, it might prove impossible to remove by it all the polypi.

Of these several instruments, therefore, I prefer my own modifications, because, in my hands, I find them safer. When the uterus is fully dilated it will readily admit a full-sized finger; the wider instrument can then be readily introduced with less danger than a smaller one of perforating a softened uterus. Possibly, those who are as experienced as Dr. Simpson may as safely use his instrument, but for those who are not so skilled the least dangerous instrument is to be preferred.

It would appear that in these obstinate cases of menorrhagia there are two conditions of the uterine mucous membrane which require to be removed: one is the presence of polypi of various sizes and number, which grow from its surface; the other is a softened state of the mucous membrane, probably *inflammatory* in character, and which bleeds upon the slightest touch, in many cases upon the slightest movement of the patient.

I was lately enabled to notice this state of mucous membrane in an old woman in whom menorrhagia was present, and in which there was complete prolapse of the uterus.

Dilatation of the os enabled me very readily to see the mucous surface of the uterine cavity, which was covered with villi, varying in size, to the eye, about one eighth to one sixth of an inch long. On being touched, these bled profusely. The microscopical characters were those of erectile tissue surrounded by epithelium. It is easy to understand how, with such a structure, hypertrophy of one villus would produce a polypus.

The plan I adopt in these cases is to dilate the uterus by a sponge-tent, after the manner so beautifully described by Dr. Simpson in the 'Edinburgh Monthly Journal,' (vol. for 1850, p. 7). This is consecutively done for three or four days, until at last the cavity is so large as readily to admit the index finger. I then draw down the uterus by means of a peculiarly constructed, corkscrew-shaped hook, which has, I think, a decided advantage over those in ordinary use, neither compressing the cervix, as in the case of tenacula, nor tearing the os, as is so commonly done with ordinary single or double hooks, a result very likely to take place when, by the very dilatation previously practised, the os is thin and easily torn through. Pulling down the uterus by this instrument, and pushing the index finger up into the uterine cavity, I am enabled to feel any irregularities or small polypi on the lining membrane. But in this way polypi may be felt quite at the superior part of the fundus uteri, which, owing to the length of vagina and uterus and the shortness of the finger, might have been overlooked. The finger being now removed, the scraper or gouge is introduced, and the whole mucous membrane removed. It is remarkable how, where the amount of hæmorrhage has been so excessive that even the mere touch of the sound has almost justified alarm at the consequences, yet the moment the uterus has been denuded of its mucous membrane all hæmorrhage ceases. This done, about half an ounce of Tr. Iod. co. or Tr. Ferr. Sesq. is conveyed by means of an elastic-gum catheter to the superior portion of the uterine cavity, and allowed to flow down through a speculum in the vagina. The case is

now left to itself; if pain occurs, an opium suppository is applied within the rectum. One application of the injection often suffices, but more lately I have repeated in very bad cases the injection, *i. e.* from three to five or even six days, so long as the os continues patent enough to admit a goose-quill high up. After the second or third day a reddish, mucous discharge begins to flow, where Tr. Ferr. Sesq. has been used, accompanied with large, thin, black flakes, which look very like scales of charcoal; this is, however, soon replaced by an ordinary leucorrhœa, and the cure is generally complete. The operation may sometimes fail in those cases where the hæmorrhage is due to a softened, probably inflamed, villous membrane, if the whole diseased part of the mucous membrane, or perchance some polypus growing upon it, may not have been scraped away. The disease may, therefore, at no distant period, reappear. Now, I believe that in many of these cases the injection, if applied at once, corrects the error of the operator, by constringing and then setting up a healthy and absorptive action in the lining membrane of the uterus, and particularly in the diseased parts accidentally left behind. Indeed, this absorptive action, it might be said, in some measure was set up by the very sponge-tent itself. I agree upon this point with my colleague, Dr. Savage, that the mere and occasional dilatation by a sponge-tent suffices to cause the absorption and diminution of volume in the uterus, besides increasing the tendency of the uterus, after a time, to contract and expel its contents from the very irritation set up, so far favouring the egress of any fluid which may have been retained or even injected.

One of the dangers of scraping the uterus has, it is alleged, been manifested by the occurrence of *peritonitis*, and I have heard of two such cases; I think, however, the causes of these mishaps were twofold:—1, the instrument used, and this too deeply, by which more than mucous membrane was removed, probably also actual uterine parenchyma, involving veins; 2, in both these cases alluded to no injections were used. Too much reliance was placed on

the scraping operation so clumsily done. Less scraping is needed if we use injection also, to carry out and complete the cure begun. Hitherto, I am glad to say, in my own practice and in that of my colleague, Dr. Savage, no such disquieting and unfortunate result has been observed. Pain there is sometimes, but it is generally inconsiderable, and the patient expresses much gratification at the cessation of the hæmorrhage, even though at the cost of some temporary inconvenience. I should, of course, in no way adopt this plan where there was the slightest metritis present. In such cases, moreover, the preliminary sponge-tent would not be borne, and so the process begun could not be carried on. Again, in a highly plethoric constitution, to check a preservative hæmorrhage would be highly injudicious. But in anæmic cases, where the hæmorrhage has long persisted, where the patient has been physicked to a *ne plus ultra* extent, I think it is at once a safe and proper practice. I believe, moreover, that in many of those cases where the catamenial period is unusually abundant and long-continued, particularly during the period when it is about to discontinue altogether, it will be found, on proper examination of the lining membrane of the uterus, to depend chiefly on local causes. Such are polypi, projecting folds of uterine mucous membrane, or a villous growth upon its surface. Hæmorrhage from such causes can, so far as I know, be cured effectively and speedily generally in a week or ten days by the method recommended.

It has been asserted the scraping of the uterine mucous membrane may cause sterility. This is not even probable. On the other hand, sterility must certainly exist in cases of menorrhagia. Mucous membranes are readily reproduced, particularly that of the uterus, which is normally thrown off entire as decidua after labour, and again reproduced. Moreover, the catamenia are regularly established after the operation of scraping. This is *prima facie* evidence of possible conception.

The last objection made is that such cases may get well under other general treatment. Granted they do occa-

sionally, but then it is only after many weeks' suffering, perhaps months, where local measures would have effected a cure in a week or ten days. It is equally certain some of these cases will not get well by any other means.

In conclusion, I do not mean to say that the method of cure now recommended will be successful on all occasions, and it may have to be repeated. Nor do I mean to say that in instances where polypi are larger than a small nut, and confined to the cervix, that it is to be practised. Here excision, by Dr. Locock's instrument or the knife, is the better plan, and in these cases it will be found that the cork-screw-hook before mentioned will often suffice to bring it down for excision with ease, or for destruction by Potassa Fusa. The last effectively prevents a recurrence. The only danger of this last plan is the fear of destroying too deeply, perhaps causing in the sequel obliteration of the os, a result I have seen follow the too free application of lunar caustic, although I am free to admit that, with so skilful an operator as Dr. Simpson, such mishaps could not occur. But we are not all Sir C. Lococks or Dr. Simpsons, and the plan I propose is, I think, less dangerous. In cases where numerous and small polypi are found in the cavity of the uterus and at the fundus, I think the plan now proposed is to be preferred.

The uterus need not be scraped on every occasion. Injections, if preceded by a sponge-tent and repeated frequently, may obviate the necessity of the gouge.

A CASE
OF
COMPLETE OBLITERATION
OF THE
CANAL OF THE SMALL INTESTINE
BY
FŒTAL PERITONITIS.
AMUSSAT'S OPERATION.

(WITH A PREPARATION AND COLOURED DRAWING.)

BY
R. DRUITT, M.R.C.P.

Read April 4th, 1860.

Mrs. C—, a healthy little woman, was confined with her third child, a girl, on the 25th of December, 1859. The child was well-nourished and well-formed, cried and breathed vigorously, and was abundantly covered with cheesy varnish, but it was noticed that the upper part of the stomach was unusually swollen, and that the veins on the surface of the abdomen were very much developed.

26th.—The child took the breast during the night, and slept, but was sick and restless at intervals. At 1 p.m., when I saw it, there were fits of pain, restlessness and straining; plenty of urine had passed, but no motion; castor oil which had been administered had been vomited.

On examination, the anus was found perfect, and it readily admitted the finger. I then made several deliberate attempts with an efficient syringe to inject water, but it returned immediately; I then tried inflation of air with equal want of success; yet it was curious to notice that these

attempts evidently pacified the child, which ceased crying and began to strain when the anus was irritated.

9 p.m.—Mr. Henry Lee saw the patient; and having deliberately examined the case, and finding that the finger would pass about two inches, and that the canal seemed impervious beyond, and that the vomiting was increasing and acquiring a green, stercoraceous character, he consented to perform Amussat's operation for opening the descending colon, a part which we hoped might be above the seat of obstruction. Accordingly, chloroform was administered, which the child took very ill, exhibiting the greatest repugnance to it, and being thrown into a semi-convulsive state. Then Mr. Lee, having made a transverse incision in the left loin, through the skin and muscles, reached what seemed to be colon, and made a cautious aperture. Nothing, however, passed out. Then a flexible catheter was introduced and passed gently upwards and downwards, giving exit to a little, reddish serum. After another attempt to recognise the tissues which presented themselves, another aperture was made, from which flatus seemed to pass, but no fæces. The operation was then pursued no further, and the child (which had but very little blood) was wrapped up warmly and committed to its mother. It lived till 6 p.m. of the 27th, that is to say, fifty-six hours from birth, taking no nourishment, showing periodic fits of pain, and vomiting a yellowish or greenish, offensive stuff.

A post-mortem examination was made by Mr. Lee on the 28th. The peritoneal cavity contained a little, reddish serum, and it soon became evident that several coils of intestine were in an exceedingly distended state, and the remainder exceedingly contracted.

On removing the viscera for more minute examination, and tracing them downwards, the stomach and duodenum were seen to be of natural size, but nearly empty; the jejunum and upper third of the ileum immensely distended, dark, and vascular. The distension ceased at a tangled spot, tied together by a multitude of adhesions, which matted a coil of intestines to each other and to some enlarged me-

senteric glands. This part was exceedingly difficult to trace or unravel, not only because of its complexity, but because it was so brittle; and a little portion of it, represented in the drawing, was torn off where it adhered to the bowel below. But it was soon made abundantly evident that the canal of the bowel ceased entirely at this point, and that, besides the point of complete obstruction, there were one or two places close by at which the canal was nearly, but not quite, obliterated.

The remaining portion of the ileum, with the colon, presented a remarkable contrast, being pale, small, and containing a very small quantity of colourless mucus, some of which could be squeezed through the anus. On tracing this portion upwards, it was clearly seen to begin abruptly with a blind, rounded extremity, and that it was entirely disconnected and cut off from the distended portion of bowel above. There were numerous adhesions, most of them of an extremely light, flocculent character, between several points of the intestine and the parietal peritoneum.

The drawing, executed with Dr. Westmacott's habitual skill and fidelity, shows the last six or seven inches of the upper or distended portion, and the whole of the lower or contracted part down to the anus; the size is that of the parts represented.

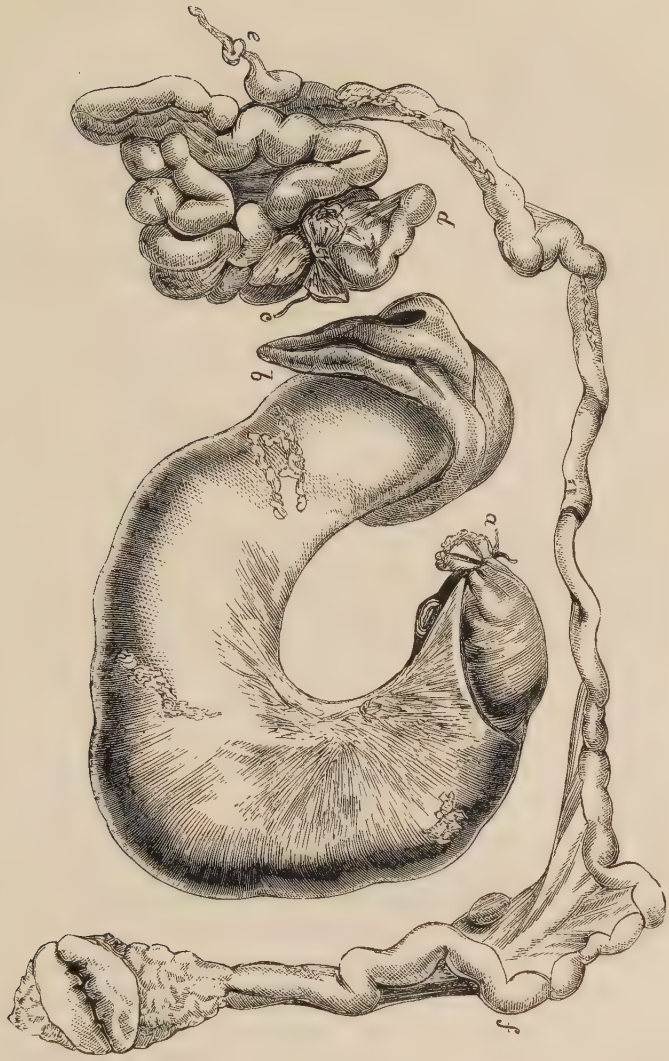
The mother presents no trace of syphilis or of any other constitutional disease, and enjoyed perfect health during her pregnancy, with the exception of an attack of colic with diarrhœa in August, just before she quickened. There were no unusual movements of the fœtus in utero.

That the child had been the subject of peritonitis in utero is certain, and it is almost equally so that the attack occurred very early in pregnancy, before the contents of the intestines were coloured by the bile. Peritonitis at this period is not uncommon, as we may learn from Simpson, Graetzer, and other writers on the diseases of the fœtus; but the completeness of the mechanical effect in this case was remarkable, and worth putting on record, for it is evident that a portion of intestine had not only been tied down in a constrained position, which is common, but that

the portion so tied had been completely severed, and that the severed extremities had healed up in a manner precisely similar to the behaviour of an artery when tied. The growth and good nutrition of the child, spite of this state of the bowels, is illustrative enough of the quiescence of the digestive system in uterine life.

The question may indeed be raised whether the case is not one of defective development of the bowel, and of peritonitis ensuing? But all modern pathological research leads to the conclusion that inflammation is a more frequent cause of want of development than the converse.

With regard to the operation which was skilfully and carefully performed by Mr. Henry Lee, it was found that the peritoneal cavity had been opened just behind the extremely contracted descending colon. This case does but add to the number of instances showing the extreme difficulty and uncertainty attending all operations for the relief of internal obstruction. Nevertheless I am prepared to justify such operations in all cases in which life cannot be prolonged except by such a desperate proceeding, and I lay the case before the Obstetrical Society as a contribution to the existing body of facts.



a, *b*. Portion of distended ileum, with flakes of lymph. *b*. Termination of pervious portion of bowel, matted together and torn. *c*. Small portion of bowel torn off, and adherent. *d*. Blind end of lower and contracted portion. *e*. Appendix vermiformis. *f*. Sigmoid flexure.

ON CERTAIN

PHENOMENA, FACTS, AND CALCULATIONS,

INCIDENTAL TO OR CONNECTED WITH THE POWER AND ACT OF

PROPAGATION IN FEMALES

OF THE

INDUSTRIAL CLASSES IN THE METROPOLIS;

DERIVED FROM

THE EXPERIENCE OF TWO LYING-IN INSTITUTIONS,

EMBRACING

A PERIOD OF ELEVEN YEARS, DURING WHICH UPWARDS OF 12,000 CASES WERE CAREFULLY OBSERVED.

BY

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Read May 2d, 1860.

I PROPOSE to lay before the Obstetrical Society of London the collective results of many curious and important facts, carefully recorded, with some illustrative notes and calculations, extending over a period of many years of public practice in that branch of the medical profession which our Society is emphatically brought together to improve and raise to the dignity of a science.

For several years past I have felt anxious to communicate to my fellow-labourers in the same field with myself the mass of information I had, on my part, gathered in it. But how and through what apt channel to do so was the question. More than forty years ago I made an attempt to re-establish the system, which an old predecessor of

mine at the Westminster General Dispensary had originated, of publishing to the world the result of each year's practice at a public institution specially devoted to midwifery. Dr. Bland, the first appointed physician-accoucheur to that dispensary in 1774, communicated to the Royal Society a tabular statement of his practice up to 1781, the date of his communication. He did not, however, follow it up by any other. My much more extended report, published in 1819, consisting of an octavo volume of my practice at the same dispensary during the preceding year (being the first year of my settling in London as an obstetrical physician), although well received, was not responded to by my contemporary officers at lying-in charities, and no other similar report appeared. Three years later, in the 'London Medical and Physical Journal,' I published a second report for the year 1819, and there and then all my communications of that description to the public ceased. I felt that I had not the right audience among the multifarious readers of public journals, and I was aware how reluctant purely medical or surgical or even scientific societies showed themselves in accepting distinct obstetrical papers. Dr. Bland's precedent at the Royal Society was not likely to be repeated.

The institution of the Obstetrical Society, so ably and zealously initiated and organized by its present Treasurer, with the active co-operation of its first President and the two Secretaries, aided by an assiduous Council, intended to carry out the higher professional aims which such a society should have in view, opened a new field for the promulgation of obstetrical facts. To judge from the first year's experience, the mantle, so imperfectly assumed by a former society in 1825, seems to have fallen on the right prophet. The Obstetrical Society of 1859 will prove equal to the noble task it has imposed on itself, and the first volume of its 'Transactions' testifies to the accuracy of my prediction.

To that Society, then, it is my pride at this moment to submit the collected proofs of my public obstetrical expe-

rience, which, but for its existence, would continue to lie dormant in neglected portfolios.

Ere I proceed to give the facts themselves, however, it is important that I should state whence they have been obtained, from what sources they are derived, and what evidence can be alleged in support of their authenticity. It is the want of such corroborative testimonies that often renders statistical tables of obstetrical facts doubtful, and makes readers sceptical, thereby divesting otherwise valuable and conscientious communications to the public of that authoritative character which is so essential to make them useful and available documents in our professional investigations. Indeed, Dr. Bland himself had deemed it necessary, in his communication to the Royal Society, to state minutely the means by which he had arrived at his results, without which step, no doubt, the society would have rejected his paper. The Obstetrical Society of London will do well to attend to that example. As many of the papers to be read before it will probably refer to statistical information extending over large numbers of cases, it should be made a rule that they should all be corroborated by vouchers and authentic tables exhibited to the President or Committee of Referees. As regards the present communication, I have set the example by inviting the President to come to my house and inspect the many volumes or registers of tabulated facts on which the subject-matter of my paper is grounded.

At both the lying-in charities referred to in this paper, namely, the Westminster General Dispensary, and Benevolent Institution, the same system of investigation of the cases that presented themselves was followed, and the registration adopted was the same. That system, which consisted in five distinct series of inquiries, will be found set forth at full length in subsequent pages.

This extended system of investigation, embracing thirty-one mixed points of social, practical, physiological, and statistical information, in which resides the very essence of obstetrical science, was followed up with more or less

assiduity and regularity, according to the opportunity I had and the aid I received from pupils and assistants, for a period of twelve years, at the Westminster General Dispensary, beginning in 1818, and of eleven years at the Benevolent Lying-in Institution, beginning in September, 1826.

The total number of pregnant women admitted during those two periods conjointly was 22,427. But of this total number reliable accounts *in full* could only be obtained in 16,258 cases; and even this last number was reduced to 12,423, by my scrupulous elimination of all the cases respecting which there was either a total or even a partial want of positive and reliable information in reference to one or more points of the general investigation, and also all those women who had attended for the second, third, or more times. Thus sifted, examined, and collated, the thousands of facts I here submit to the Society may be accepted as safe elements of calculation relative to the power and act of propagation in females among the industrial classes of the metropolis, and will, it is hoped, be referred to with confidence by future observers.

If we reflect for a moment on the many important questions which depend, for their full ventilation and right solution, on such facts as obstetrical writers alone can afford, we shall not hesitate to bring them forward, nor fail to accompany them with whatever explanations, conclusions, or illustrations can render them more valuable, as well as more available, to the mere practitioner, or to the statist, the physiologist, and the philosopher, or even the politician. For to all these the reports of obstetrical experience strictly and minutely set forth in all its details, afford materials for inferences, conclusions, and calculations, relative to human life, which even a *census*, so fully and admirably conducted as it was on the last occasion in England, cannot supply. It is difficult, indeed, to conceive how questions concerning the laws which govern the reproduction and preservation of the human species, or which regard the natural duration of its existence, or the valuation of female and infant life, or the theory of population, can be discussed in the absence of

such information as obstetricians alone daily and hourly witness and collect. The Obstetrical Society of London, therefore, will render abundant service, not to its professional brethren only, but to the state, by becoming the archivist of that information which, after being digested, classified, narrowly scrutinised, and converted into a series of distinct and palpable propositions, shall afford to society in general physical as well as philosophical truths capable of almost mathematical demonstration.

In a statistical work of great merit, published some years since by the French Government, M. Fourier, the eminent mathematician, and one of the perpetual secretaries of the then Royal Academy of Sciences, to whose pen a very elaborate memoir on population inserted in that work was attributed, observes, with great truth, that "in all statistical researches there is a general proposition to which too much attention cannot be paid. It consists in this—that the indefinite repetition of events, generally denominated fortuitous, does away with the degree of changeableness that may belong to them. *In a series of an immense number of facts there are none but constant and necessary relations, determined by the nature of things.*"

Such a doctrine will be found perfectly applicable to the inquiry brought under the present notice of the Obstetrical Society of London; and as I have carefully grouped into tables the numerical facts which must, after all, form the basis of statistical calculations, I shall proceed at once to offer those explanations and elucidations of the tables themselves, without which they might be deemed unintelligible. The form I have adopted for that purpose is that of a preliminary commentary on the facts themselves, as they are here tabulated under separate sections, into which the great problem of the reproduction of man is naturally divided.

Section A.—*Ages of Pregnant Women.*

The age of a woman in a state of pregnancy forms a curious and interesting object of investigation. Were

we possessed of a very extended number of cases, we should be able to determine, with more precision than hitherto, the epochs at which women are more prolific, and at which they cease to be susceptible of childbearing. The mooted point of the earliest period of female life at which conception can take place might likewise be fixed. My experience enables me to contribute something towards the solution of these questions. In Table No. I, accompanying this memoir, it will be seen that, out of 22,427 women with child that came under my notice, I had been able to ascertain with precision the age of 16,258, which age I call the *normal* age of propagation.

This normal age I divide into three decades, or periods of ten years each, the first beginning at sixteen years and ending at twenty-five, the second commencing with the twenty-sixth year and concluding with the thirty-fifth year; while the third begins with the thirty-sixth and terminates with the forty-fifth year. The sum of years included in each decade is a number differing from that of the preceding or following decade by precisely the same figure, namely, 100 years; thus, 205, 305, 405.

The age, both anterior and posterior to the three normal decades, I call *exceptional*, the former being the juvenile, and the other the *senile*. While the first of these exceptional periods embraces only forty-two years, the second contains not less than 347 years, or eight times and a fraction as many years as the juvenile. This last begins at thirteen and ends at fifteen, while the *senile* extends from the forty-sixth year of age to the fifty-fifth inclusive. Astounding as it may sound to some ears, these two extreme points of the scale of human propagation have been in action. I can vouch for the correctness of the facts as recorded in my table, except as to one of the three cases of fifty-five years of age, the result of which is reported on the faith of a respectable midwife, while the other two were witnessed by myself. Two more cases of fifty-five years of age are recorded, under the head of pregnancy, in my registers of the Westminster General Dispensary and Bene-

volent Institution, but they turned out to be abdominal tumours. The oldest case of real pregnancy I had seen before, as published by myself,[1] was one at fifty-two years of age. With regard to the precocious age of thirteen, I have, on another occasion, in addition to instances observed by myself, recorded those I had witnessed at the Maternité in Paris, in 1817; and now I may add the case mentioned by Mr. Acton, in his recent report 'On Illegitimacy' in the parish of Marylebone. In a paper of Dr. Hall, of the United States, I saw reported a case of parturition at fourteen years and seven months; consequently conception must have occurred at thirteen years and ten months! However, the phenomenon of conception at so early a period of female life is not so marvellous as that of the extreme period here recorded, seeing that in southern Europe mothers at thirteen years of age are not so very rare. We know, according to Duchatelet, that girls of ten years of age are regularly registered on the police-books in Paris for authorised prostitution. And it is sufficient to be reminded of the valuable facts relative to the ages at which menstruation commences and ceases in the human female, brought forward by Mr. Roberton and Mr. Whitehead, both of Manchester, to believe in the actuality of pregnancies at thirteen and beyond fifty years of age; seeing that those observers have found, in 5500 females, 35 menstruating at eleven years of age, 155 menstruating at twelve, 385 at thirteen, and 26 cases menstruating still at fifty, 2 at fifty-one, 7 at fifty-two, 2 at fifty-three and at fifty-four, 1 at fifty-seven, and 2 at sixty years of age!

It is much more interesting to endeavour to ascertain the age at which women of the industrial classes in the metropolis, constituting the total of my patients here referred to, are most prolific. This point we are enabled to determine with mathematical accuracy by means of the materials carefully collected and classed by myself, forming the Table

[1] See 'Report of the Practice of Midwifery for 1818,' 1 vol. 8vo, London, 1819.

and Appendices I and II, of ages, as well as by the coloured diagram by which they are illustrated.

On inspecting those appendices, or the diagram in question which represents the aggregate of all the numbers in those appendices, the relative number of pregnant women at each age who were admitted (and most of them within a few weeks or days of their confinement) from thirteen to fifty-five years, is seen at once. That number will be observed to increase as we progress from the earliest to the thirtieth year of age, which is the culminating point; yet not with a continuous regular increment, for, on the contrary, there will be noticed in both appendices, and still more so in the diagram, a striking decrement for the year immediately preceding the thirtieth year, and an equally remarkable, and indeed an immense, fall in the number representing the year immediately succeeding the culminating one, namely, the thirty-first year. Does it not look as if nature, by the former decrement, meant to rest awhile, and gather strength for the enormous jump she was to make in the following year, being not less than a duplication of the progenitive effort, and that by the second decrement (a fall of from four to one) she meant to evince the exhaustion which invariably follows over-exertion? Now, it is curious that, if we find out by the usual mode of calculation the average age of all these women, we come to the same result, namely, thirty years, as the age at which they are most prolific. Accordingly, when the collective ages of the 16,258 women (which do not include the multiparous) is calculated, we find that at the time of their registered pregnancy they had lived 473,030 years, which give twenty-nine years and three fifths, and, with the addition of the multiparous women, thirty years as their average age! As this fact uniformly recurs every year, and at both charities, without any deviation, we may accept it as one of the laws that regulate human reproduction, in this country at all events.

SECTION B.—*Produce of Pregnancies.*

In a second table, placed side by side, I have produced two summaries of single births, male and female, at the Westminster General Dispensary, during a period of eleven years, from January, 1818, to December, 1828, in the cases of 7717 pregnant women; and at the Benevolent Institution, in the cases of 4761 women, from May, 1822, to December, 1828. From this statement it will be seen that, for a period of seven years between 1821 and 1828, the two institutions had acted simultaneously, supplying together a total of 12,478 pregnant women out of the entire number of those originally admitted, amounting, as before stated, to upwards of 16,000. The discrepancy between the two numbers arises from the often irregular return of the lying-in letter by the midwives or the patient, on which the results of the labours are recorded, and from the omission in the calculation of every patient who had already attended as such more than once.

From the two summaries in question it results, that in the eleven years at the Westminster General Dispensary there were born 4085 boys and 3632 girls, together 7717 children; and in the seven years at the other institution there were born 2530 boys and 2231 girls, together 4761 children; being a combined produce of 12,478 children, exclusive of multiple births. The proportion of males to females was $1\frac{1}{9}$ to 1, whether the results at the two institutions be taken separately or conjointly, which is a somewhat higher rate than the one cited by Quetelet as the general proportion of sexes in Europe, viz., 106 males to 100 females.

Of this general total of births there had been 192 children stillborn, of whom ninety-four were boys and ninety-eight were girls, at the Westminster General Dispensary. Of this number, thirteen, namely, seven boys and six girls, were born before the full period of gestation. At the Benevolent, eighty-five children were stillborn, of whom fifty-seven were

boys and twenty-eight girls, and of these numbers, seven, or four boys and three girls, came before the full period of gestation. The two institutions, therefore, gave a combined number of 151 stillborn males and 126 stillborn females, together 277 stillborn, of whom twenty were before complete gestation.

The proportion of stillborn males was 1 in 43·8, and of females 1 in 46·5, while the general proportion of stillborn children was 1 in 45. Eighteen children, namely, five boys and thirteen girls, were born prematurely and alive. Of this number I was able to ascertain the precise period in ten cases only, namely, four at seven, four at six, and two at five months and a half. One of the latter lived only one hour. According to Churchill, the experience of the Dublin Hospital, during seventy-nine years, out of 134-908 births, gives the proportion of stillborn children as 1 in 17 ; that of the males being greater than of the females, as in our own case. The extreme rate in Europe occurs at Strasburg, being 1 in 11. Next comes the Dublin rate, and that of Stockholm is quoted as the most favorable, being 1 in 36, while the mean European proportion is rated at 1 in 22. The proportion most favorable of all, therefore, is the one now represented. It is interesting to remark that, by a great increase in the same series of facts, we observe a diminution in the rate of stillborn children. Thus, in my first 'Report of Midwifery' at the Westminster General Dispensary, 1818, that rate was 1 in 32, nearly, among 649 births ; and in the second 'Report,' 1819, among 629 births, the rate was 1 in 33. But now, with 12,478 births, the rate becomes lower.

It was a rule with the forty midwives under my direction that they should report to me, so that I might examine it, every case in which the new-born infant presented any defect of organization. Accordingly, in the course of the period here referred to, I had occasion to observe in six instances, at the Westminster General Dispensary, and in six instances at the Benevolent, the following deviations from perfect or normal structure.

At the former institution one child had the right arm shorter than the left, and a second child had a cleft palate, without any corresponding division of the upper lip. A third child was born with *spina bifida* confined to the three last lumbar vertebræ, and not affecting the sacrum; it died in a few hours. There were no testicles, either externally or internally, and the urethra was impervious, and the bladder contained urine. This fact is an important one as connected with the debated physiological problem of any direct communication between the bladder and the allantoid by means of the *urachus*, in reference to the secretion of urine, or of the presence of urine in the amniotic sac, as contended by Emmert and others. A fourth child came into the world with well-marked ascites, another had deformed feet, and a sixth child was born alive of a mother who died on the seventh day of phthisis, weighing eleven pounds avoirdupois, and measuring twenty-four inches. A girl, born February 26th, 1825, had a red-coloured discharge, like menstrual blood, from the vagina, and one of the nymphæ was much enlarged and excoriated.

At the second institution the first and most interesting case of congenital malformation was that of a boy, born alive and at the full time of gestation, of a healthy mother, presenting an arrest of development, but in different degrees, in all the four extremities. The labour was a natural one, as all her former labours had been, including one of twins, and I should not probably have been called to it but for the anxiety expressed by the mother that I should decide the point as to whether "such a monster should not be put out of the world," the good woman seriously thinking it was my duty to do so. The child, however, lived, and did well, and the mother nursed him tenderly. What became of him afterwards I know not, though it would have been interesting to have followed up the career of a living TORSO, *sans* arms, *sans* legs, through the world. Dr. Edward Morton, of the University of Cambridge, and afterwards of Hullcliff House, Yorkshire, who was at the time attending my lectures and practice, was permitted to publish the case,

accompanied by a striking portrait of the child, with all its deficiencies, in the 'London Medical and Physical Journal' for 1824, vol. li, p. 175. Dr. Morton at once and absolutely repudiated the notion that the influence of the mother's imagination, in this or any other similar instance, could have acted on the early embryo so as to modify its successive development. The story, at all events, related by the mother to account for the occurrence is so plausible that, even as a mere coincidence, the mutilated fœtus becomes an object of interest. I perfectly remember that, after hearing the simple and *naïve* narrative of the mother, I took pains to ascertain its authenticity, by inquiring into and satisfying myself of the correctness of its dates, the actual reality of the circumstances narrated, and the positive existence of the individual said to have caused the mischief. And I can equally recollect my astonishment at finding the individual in question, who was a well-known character in the neighbourhood, presenting, in his crippled state, the very prototype of the deformities of the child. He was a robust, sturdy man, in the garb of a sailor, always dressed in white. He had lost both his arms a few inches below the shoulder, the right one ending in a conical stump, as one sees after a well-performed amputation, while the left terminated in a species of articulated, double, iron hook, which served him for purposes of prehension. His right thigh had equally been amputated half way below the great trochanter, and the stump hung pendulous, while the left thigh rested on the bent knee, half inclosed in a wooden cup, terminating in a stick, on which he rested. He pretended that his knee had been shattered by a splinter on board ship, and that he could not straighten his leg—probably an imposture. By the help of the articulated hook, or iron fingers, he was able to command the use of a crutch under his arm, and thus attain to a sort of jumping progression.

Our patient, perfectly unconscious of his presence, was leisurely returning towards home in the court she lived in, holding an infant in her arms, still at the breast (not aware of being at the time *enceinte*), when she received a smart tap

on her right shoulder, that made her turn suddenly round. The short stump of the beggar stared her in the face with its tremulous motion, and the whole man, with his quadruple deformities, became revealed at the same time. The alarm caused was so great that she screamed, and would have fallen had it not been for one of her neighbours, who assisted her in-doors. The occurrence passed off her mind in two or three months, nor did it recur to her memory until the midwife laid by her side the living and chubby infant just born, exactly as represented in Dr. Morton's facsimile delineation. Let any member of the Society look at it, and, bearing in mind the preceding description of the beggar, say whether it is not an extraordinary coincidence that the physical condition of the two beings should be identical.

"The arms of the infant" (I quote Dr. Morton's words), "three inches from the trunk, terminated in conical extremities, presenting the same appearance as stumps. At the end of the right there was a small excrescence like a pimple, and upon the left, at nearly the same place, a much larger projection, with two small eminences upon it, something like fingers. The right lower extremity, or thigh, proceeds about two inches from the pelvis, and then abruptly terminates in something like a foot with two toes; while the leg and foot, correctly formed, show the thigh to be only half its proper length, which brings the knee too near the body, and gives the whole limb an unnatural appearance." This was the short thigh imbedded in the wooden cup, with the bent, well-formed leg behind, which could not be perceived by the women.

On my part, I feel no hesitation in exposing myself to any number of smiles of incredulity among my auditors by declaring that I believe in the possibility of a physiological influence having been exerted, through the cerebral commotion in the mother, on the process of moulding the embryo. This will not appear so incredible when we remember that it is the hand and forearm, as also the foot and the leg, which are first formed in the embryo; the arms and the thighs not making their appearance until two

weeks later. It was while the former were about to be moulded that the *nisus formativus* was suddenly disturbed and arrested by the nervous alarm. Such a stage of embryonic morphology corresponded precisely with the period of gestation the woman had unconsciously arrived at. That stage once past, and the proper moment for it lost, nature went on to the next stage—the formation of the arms and thighs, and every other successive stage of development, under the restoration of a normal nervous condition of the mother, producing at length an unusually well-grown infant, which showed, at all events, that its deficiencies did not arise from a lack of building materials. Not on this striking example only, but on other instances that have occurred in my public as well as private practice, and on the cases to be met with in respectable authors, do I ground my individual belief.

And why should it not be thus? When we consider that the first-formed part of the embryonic fabric, according to Rolando and others, is the rudiment of the nervous system, and that this rudiment determines the first degree of development in the embryo, its blood-vessels following after and later still (that is, considerably after the second week of conception), then the cartilaginous indications of what will be bones appear, followed later still by the soft parts that are to cover them; I say, when we consider all these facts, we shall not think it preposterous to suppose that the maternal and newly formed embryonic nerves (constituting but one galvanic system by apposition) should, under peculiar circumstances, exhibit extraordinary nervous results. We know that the nerves are the regulators of muscular action and of the growth of bones. On the other hand, we cannot but look upon the embryonic nerves as being the extremities, so to speak, of the intro-uterine nerves of the mother, though no continuity exists, the fœtus (to use an expression of Bischoff) behaving as if it were an organ of the mother; if so, where is the difficulty of understanding the direct influence of the mother's imagination or cerebral impressions on the life and conformation of her embryo in

utero, just as the letters of a message from the main terminus are transmitted and imprinted at a distant station through electro-metallic filaments.

Good, honest James Augustus Blondel, who, in the early part of the last century, so cruelly lashed Dr. Turner for his belief in and advocacy of the power of imagination in the mother over the fœtus, would at once have spurned me as an "imaginationist." But, with all his learning and quaint devices and anecdotes, he fails to inspire me with respect for his contrary doctrine, when I read of such embryogenetic opinion deliberately uttered by him as this—"that the ovum remains for several weeks after fecundation without any adhesion in the uterus, living all that time and increasing in size as an individual distinct and separate from the body of the mother, with no common circulation of blood between them. Neither do I hold myself rebuked by the pert and illogical remark of some one who used to sneer at my notion by alleging the example of the chick *in ovo*. Such a comparative physiologist must have forgotten that there is not the smallest analogy between the two cases; for in the one incubation is wholly intro-uterine, while in the other it is extra-uterine. And it is during incubation, and not *impregnation*, that my theory applies.

No one has ever doubted—certainly no member of the obstetrical profession can doubt—of the continuous, though indirect, arterial intercourse between the heart of the mother and that of her fœtus. Mayer and Magendie have proved that the placenta is an absorbing organ, acting on the blood of the mother. Why doubt an intercourse between the two nervous systems? It is an established fact that, at about the sixth week after conception, the first indication of the thoracic and pelvic extremities appear, while the thoracic cavity is still open in front; and that not until between the ninth and tenth week do the superior and inferior extremities show signs of the three distinct sections of which they consist, the hands and feet being still without digital separation, and, according to Valentin, the whole extremities being yet uncovered by their muscles, which do

not appear until the third month of gestation. Well, then, let a disturbing interference supervene at this period, and what difficulty is there of comprehending any partial arrest of development as a consequence?

Furthermore, we know that people have died on the receipt of a mental shock. "So common are these catastrophies," says Winslow, "that it only requires the less informed to call instances to their recollection, which they have either known themselves or being credibly informed by their acquaintance. If their death, which can only be the lesion of vital organs suddenly checking their functions, results from a shock of the imagination or mind, there is no difficulty in understanding and accepting as true the arrest of a formative process in the procreative organs of the mother from a similar cause."

I cannot resist the temptation of referring to two other striking instances of the power of imagination in pregnant women on their fœtus. And they are those of two women, both pregnant, who were exposed, during the prevalence of a varioloid epidemic, to the contagion of smallpox, amidst which they lived. One of them had had the smallpox in early life, and was not, therefore, attacked again. The other took care early to be vaccinated, and so escaped the contagion. Yet each of them gave birth to a child covered with the eruption of smallpox. Are we to believe that the virus of the disease was transmitted to the fœtus through the body of the mothers, who were insusceptible themselves by a well-known law of nature in each case? Or is it not more plausible to believe that, having been during their whole pregnancy, witnesses to the existence and progress of the varioloid eruption, the force of imagination produced the curious phenomenon? At all events, neither solution of it is free from objection. Demangeon, in his elaborate work on the 'Mother's Imagination on the Product of Human Gestation,' alludes to these and many other instances equally strange, yet hesitates in receiving them as evidence of the possibility of such effects being due to imagination. He is a much more learned and extensive

observer, as well as a modern and enlightened physiologist, than honest Blondel, whose opinion he espouses. Yet he admits that the question is still an open one: "Je crois qu'il est encore trop tôt, pour fermer la discussion sur l'influence des affections morales dans la reproduction des êtres."

The second case of congenital malformation, observed at the Benevolent Institution, was one of *spina bifida*, the child being born alive and living some time. In this instance the entire of the two first sacral vertebræ were wanting. A case of left palate, with the *labium leporiorum*, followed next, in which there was wanting the half of the upper right jaw. In a fourth case, a remarkable depression of the parietal bones, the result of a long-protracted impaction in the pelvis. Another instance of depression of the parietal bones occurred in a woman having a deformed pelvis, who had been delivered by instruments in her preceding confinement at some other institution. Here the depression, or rather the squeezing, of the two parietal bones together was such that their superior or longitudinal edges formed quite a sharp ridge, with the scalp over it perfectly on the stretch. Both eyes were protruding. The child was alive when the mother returned her letter of thanks a month after at my house. The head had become somewhat flatter, and the balls of the eyes had partly receded into their orbits. The case is so far interesting as showing of what plastic material the brain-substance in a fœtus must be to bear so much pressure without extinction of life. I cannot answer the question as to whether the lower extremities of the infant were paralysed the while, for I did not follow up its history.

Section C.—*Multiparous Births.*

The fertility of our metropolitan matrons of the industrious classes is not to be gauged only by the earliest or even the latest age at which they are susceptible of conception, but also by the frequency with which they produce multiple births. In this respect the returns I can

lay before the Society form no drawback from the favorable state of reproduction I have hitherto represented. We have had at the Westminster General Dispensary, for the quinquenial period, a yearly average number of twin cases amounting to 1 in $62\frac{3}{5}$, and a case of triplets 1 in every $3154\frac{1}{2}$ cases. The Dublin 'Report' gives 1 triplet case in 4652 births. In Beraud and Robin's 'Physiology' the French women are stated to produce twins at the rate of 1 in 70 or 80 deliveries, and triplets once in 7088 cases, being half the rate among English women. The largest number of twin cases in any years at the Westminster General Dispensary has been 16 in 669 deliveries in 1820, being a case of twins for every 42 labours. But as each succeeding year in a longer series than five does not afford evidence of the same prolific rate, if we take the general average of the double births, we do not find it to be so favorable as will be seen in Table VIII. At the Maternité we have 1 in 84. In Dublin 1 in 78. British Lying-in Hospital, 1 in 91. Bland, 1 in 80. Tenon, 1 96.

In one of the cases of mixed twins, the girl being delivered by Mrs. Barker, the midwife, at the full time and alive, on the 30th of January, 1820, I was called to the mother three days after, and delivered her of a six months' male child, well-formed, but stillborn. In another case of mixed twins, the boy being born alive and at the full time, it was found that the girl had not reached her fifth-month growth, and was blighted. A case of twin girls at eight months, alive; and another, of twin boys, which came by the feet and stillborn; and a fifth case, of twin males, in which the nates presented, and one of the children was delivered by hand, alive, are the only other cases of multiple births worthy of being singled out.

The manner in which twin children appear coupled, and present themselves, is often curious. Thus, in 1821 and 1822, two cases of twin males presented an arm, and I turned; while twin girls presented the face, and required the forceps for their delivery. In both instances the children were born alive. We have had a boy presenting

the nates, and the girl presenting the face, and both still-born. It would be a curious investigation to ascertain whether the death, in such cases, is simultaneous. There are two other cases, the first of twin females, one presenting the head, while the other came by the feet; and the second of twin males, where the leg of one and the head of the other presented at the same time. Here I bent the leg inwards, and delivered the other by the head with instruments, both alive. In a large majority of the female twins the presentation has been uniformly head of one and nates of the other. One of the strangest examples of face impacted among twins occurred in the second female, in which the child was delivered by my assistant, Dr. Tweedale, with the vectis. On the 9th of June, 1818, I delivered Ann W—, Banbury Court, of mixed twins, the female coming some hours before the male. The umbilical cord of the latter measured actually two yards in length. The two placentas were quite distinct, and the male was twice the size of the female. Both were covered all over with a species of subcutaneous, acnoid eruption, and both were alive. The mother had no milk. In the majority of mixed twins the ordinary presentation has been head and feet, all born alive. Two females in another case presented the arm; on introducing the hand, not being aware of the existence of twins, I found so many more limbs than I expected that I did not attempt to turn the one child that presented. It came away by spontaneous evolution, still-born, followed immediately after by the arm of the second child, which I turned and delivered alive. An instance of breech and hand, each belonging to a separate child, was the only difficult case out of twelve twin cases in 1828. All the preceding cases occurred in the practice of the Westminster General Dispensary.

The cases of twins at the Benevolent Institution, forty-four in number, occurring in the space of seven years, offered nothing worthy of particular notice except the peculiar presentation of the children, which, as in the generality of cases of twins, are abnormal in the half of the total number, if

not in both, at least in one, of the twins. Thus, at this institution there were twenty-six examples of normal or head presentation in both fœtuses, ten cases of head and feet, three cases of head and nates, three cases of nates, and two cases of feet, in both children. One of these cases was that of a mother in her nineteenth year, and her first birth, who had not been married quite a year; the other was the produce of a woman forty-one years of age, who had been married twenty years, and whose first and only other child was born within the first eleven months of her marriage.

All these and some that preceded may be deemed trite observations; but in the physiological investigation of the phenomenon of conception (viewed either as a single and marvellous act in nature or as a complex one rendered such by the influence of social habits, domestic difficulties or the reverse, life passed in indolence or incessant labour, and, lastly, by health and age) the observations in question must be admitted to play an important part, and, particularly so in the case of the class of women principally referred to in the present memoir. For example, how comes it that a robust and healthy woman, who, married at twenty, brings forth a healthy and living child within the first eleven months of her marriage, and, all circumstances, whatever they may have been, continuing the same, as I was assured, does not again conceive until she had almost reached the period when menstruation ceases, namely, forty-one years of age, and then produces two well-formed and healthy boys at one birth. If an ovum, according to modern theory (which Professor Müller, by the by, does not admit), passes at each menstruation into the uterus, how has it happened that, among two hundred and fifty-two such ova, not any but the last two should be fecundated? What had the spermatozoa been about all that time?

The four examples of ternary births at the two institutions presented some interesting features worth recording. In the tables of multiple births, No. VIII and IX, which I submit to the Society, the full corroborative particulars of

these triplet cases will be found recorded. The first was one of three boys; I delivered two of them first; one was stillborn, the other breathed one minute or so, the third came away by itself, and died eleven hours after; each had its testicles in the scrotum. All three looked of the length and size of an ordinary fœtus at five months and a half. The mother had had a fall a fortnight before. There were three distinct placentæ, each with capacious membranes and distinct cords, and the quantity of amniotic fluid that escaped was considerable. I made preparations of them, which, with that of the three fœtuses made a few days after the delivery, went with the rest of my preparations to Mr. North. The occurrence excited great marvel in the neighbourhood (Broadway, Westminster), and attracted visitors, principally ladies and medical students, to see the three fœtuses neatly laid out by the side of one another on a clean napkin, close to the bed of the mother, who was well requited for the intrusion.

In the second case of triplets, two boys and one girl, born alive, the feet presented in the three fœtuses. In the third case the children were stillborn, and had presented the nates. But as concerning the whole phenomenon of conception in the fourth and last case of triplets, every feature was most interesting to the physiologist. It was the case of two males and one female. One male came first, headforemost. The other male with the female came together immediately after, *within the same sac*, head and feet closely packed together. The first or solitary male was alive, and of the natural size. The other two were dead. One appeared to be a five-months child, and was putrid; the other was a seven-months child, recently dead. There were two distinct placentæ, which adhered by a very small segment of the thinnest edge of their border. One of the placentæ, that of the entire sac, had two umbilical cords. To my mind (who do not believe in superfœtation), this is certainly a case that very closely resembles it, or we may explain this triple intra-uterine combination by supposing that a simple ovum came, duly fecundated, from one ovarium; but whether

simultaneously or subsequently must be left undetermined.

The celebrated case of Mr. Hull, reported by Dr. Gartshore to the Royal Society in 1786, of five children at one birth, all delivered head-foremost within fifty minutes, two of which were alive, must be present to the mind of those who saw the preparation in the Huntarian Museum. In this case the five fœtuses were all inclosed within one general internal sac, subdivided into five cells, and with a single large placenta.

To conclude this section of multiple births, it remains only to point out the order in which the two sexes came, according to the number of their occurrence. Both females occurred fifty-one times, a male and female fifty times, and both males thirty-five times. In the case of the triplets, the combinations were these—three males, two males and one female, one male and two females, one female and two males.

Section D.—*Parturition.*

The part most interesting to the practitioner, of every report on midwifery, must necessarily be the one relating to the manner in which the mother has been relieved of her intra-uterine offspring after the full period of gestation. Simple as this proposition may seem, it involves two or three points of consideration which physiologists and obstetricians of all ages, but more especially in modern times, have always viewed with great interest. One of them is the duration of the normal time of gestation, and whether there is any strictly fixed period which nature never exceeds. I have taken no small part in the discussion of this question on a memorable though remote occasion, when those whose opinions I shared—and of whom, as well as of those opposed to us, I fear I am almost the only survivor[1]—were con-

[1] Of fifteen principal medical witnesses four only survive, besides myself: Elliotson, Blundel, Conquest, and Henry Davies.

fronted by many high authorities, who maintained a strictly limited period to be the law of nature. I have lived long enough to see the contrary opinion accepted generally at present.

The Society will recollect the case published by Dr. Maton, in the 'Transactions of the College of Physicians,' of an alleged superfœtation, which I disproved in a memoir read before the Royal Society, and published in the 'Philosophical Transactions' for 1818, entitled "On a Malconformation of the Uterine System in Women, and on some physiological conclusions to be derived from it." And they will also bear in mind the much more striking instance of apparent superfœtation supplied to me, with the preparation by Mr. Chapman, of Windsor, in which two deliveries took place at two months' distance between. At the first a complete ovum came away at the seventh month of pregnancy; at the second a child, alive, at nine months, was born. But the fœtus of the first ovum had died at four months, and looked so.

To show how indefinite is the term of gestation in the human female, ranging, as it does, between 270 and 300 days, the latter being the longest legalised term admitted by the Napoleon Code, we have only to examine the various registries of births recorded by obstetrical writers in charge of lying-in institutions, among which we may reckon the summaries I now offer to the Obstetrical Society. Of the many thousand married women of the industrial classes who have answered the first three questions of the third series of inquiries alluded to in the early part of this report, and whose date of delivery was faithfully recorded, there may be several who may have been mistaken, and some few who were misleading in giving their answers; but the largest majority do not belong to those categories. From the history of these, therefore (the beginning and ending of their pregnancies), we may collect material for coming to accurate conclusions. I am aware that there are some over-sceptical rigorists who pretend that, unless the reporter has himself actually seen the patient on the day she last menstruated,

and ascertained that fact, as well as being present at the birth, so as to compare the two dates from his own knowledge, no reliance can be placed on the calculation of the period alleged to have lapsed between those dates as reported in obstetrical tables. If we adopt the system of throwing discredit on women, because they may be sometimes mistaken, but cannot always be mystifying, and we decline to rely on the report of an honest medical man, we bring ourselves within the possibility of having all our own statements, as to ordinary practice of medicine, cast into doubt, for they are dependent on no stronger or more reliable evidence. It is precisely in consequence of these and other previous considerations, that I look upon the once disputed proposition of a protracted gestation as no longer a disputable question. I need only repeat the names of Hamilton, Velpeau, Capuron, Gardien, Murat, Montigny, Merriman, Lee, Beatty, Askwell, and Churchill, besides many more among both German and Italian obstetricians, to show that mine is not an unsupported conclusion.[1]

We have next to consider the position, or rather the localization, of the fœtus in utero, which is ultimately to determine the manner of its presentation at the uterine orifice when the time for its expulsion has arrived, as on the latter will depend the kind of labour that shall follow. It is not that any useful or practical deduction can be expected from this consideration, inasmuch as, be the normal attitude of the fœtus in utero and its possible deviations what they may, we shall never, even supposing we could ascertain them beforehand, be able to direct or control the particular position of the fœtus at the uterine orifice most favorable for its expulsion. Still, the speculation is a curious one, and the members are aware that it has engaged, among the most modern obstetricians, the notice of Dr. Simpson, who may be considered as the last of a long series of writers upon the subject, commencing from Hippocrates (whose olive would come easily enough through the narrow neck of a bottle if it did not lie *across it*), and ending with

[1] See also 'London Med. and Phys. Journal,' vol. lxiv, p. 89.

the eminent Edinburgh professor, with its physico-mechanical explanation. Dr. Fleetwood Churchill, in his very able and complete 'Treatise on Midwifery,' has given a lucid summary of Dr. Simpson's notions, which, however, seem to me insufficient to account for the multiform attitudes assumed by twins and triplets, as recorded in the present memoir.

Be that as it may, one indisputable law is made manifest in the act of reproduction in the human female by the records of lying-in establishments, namely, the almost innumerable varieties of position in which the fœtus, when about to be expelled, is apt to present itself at the place of exit. Whether this variation in the attitude be more prevalent among the females of the working than of the easy classes, we have no certain data by which to determine the point. All statistical calculations dependent on a large series of numbers have hitherto been derived from public practice. They can only refer, therefore, to the working classes, and consequently it is just to suppose that their peculiar condition in life may be the cause of the very frequent examples of what must be called abnormal attitudes of the fœtus during parturition. The records of the two charities I represent, in this respect form no exception to the general rule; and it will be found, on looking at Tables XI and XII, that, inclusive of the truly normal, or, as I call it, primitive presentation, namely, that in which the occipito-frontal diameter of the head of the fœtus lies in the line of the less inguino-pubian and ilio-sacral axis of the pelvis, not fewer than sixteen other variations of the presenting parts have been observed. Still, the proportion of cases of the primitive position to those of the variable or abnormal positions has been as high as 981 in 1000 labours for the Westminster General Dispensary, and of 974¼ in 1000 labours at the Benevolent Institution.

But in order clearly to comprehend the import of the two tables referred to, it is necessary that I should remind the Society of my former publication on the practice of midwifery in 1818 and 1819, in which I proposed to dis-

card all the old and somewhat strange denominations given to labours, according as the presentation of the fœtus may have caused difficulties or not in its progress. I regret to see, even in some of the most modern works on midwifery, otherwise remarkable for the ability and talents of their authors, the same long litany or formidable array of names given to labours, which, to say the least, besides sounding alarming and being a burden to the memory of the students, seem inapplicable for the occasion. If we take Burns as representing the most respectable head of the midwifery of the early part of our century, Dr. Francis Ramsbotham as the exponent of a subsequent improved period, and Dr. F. Churchill's as the most modern of the several valuable treatises of our immediate epoch, and put together their proposed denominations of sundry species of labours, we shall find among them, twelve in number, some that sound oddly to the ear. Let us see:—"Natural, premature, preternatural, tedious, laborious, instrumental, impracticable, complicated, difficult, lingering, complex, unnatural!" Beginning with natural and terminating with unnatural, as if anything could be, in nature, not natural or against nature! Labour, or the expulsion of the fœtus, can only take place in one of two ways—1. By the natural expulsive efforts of the womb. 2. By the aid of the attendant when those expulsive efforts cease, or are deficient, or impeded in their action. Nature is active in the first case. She is passive in the second. In the latter, without aid, her efforts are unavailable. Still, there is nothing unnatural in such a state. The aid she demands to complete her work is supplied by the attendant, either by the hand or by suitable instruments. Hence a much simpler and brief classification of labour, viz.—1, active labours; and 2, passive labours; the latter being subdivided into manual and instrumental. We may, if we are partial to subdivisions, separate even the active labours into *quick* ones, or such as take place within twelve hours; and *slow* ones, or those which endure beyond that time. Such is the classification I proposed in my reports on midwifery two years ago, and

the same I have adopted on the present occasion. I have never heard any objection against it, nor can I imagine any reason why a simpler should not be preferred to a more complex classification, and all terrific denominations banished. The inspection of the accompanying tables, at all events, will show how much more convenient such a mode of classing labour is found to be when enumerating, arranging, or describing them under the different kinds of presentations of the child.

Table XI contains the enumeration of the active and passive labours which have taken place under my direction at the Westminster General Dispensary, during a period of eleven years, distinguishing the manual and instrumental labours, with the result as to the children, in the two last-named subdivisions of passive labours. Table XII exhibits a similar enumeration, referable to the practice of the Benevolent Institution during a period of seven years. At the first charity the active labours were to the passive as 7628 to 43, or one passive to 177 actives. The result of the passive labours, as to the children, was 31 alive and 12 stillborn. At the second charity the passive were to the active labours as 4718 to 34, or one passive to 139 active, nearly; and the results to the children was 21 alive to 13 stillborn. So that, taking the practice of the two charities conjointly, we find one passive labour for 160 active ones; and that in 77 passive labours 52 children were born alive.

When we look to the nature of the presentations, we find that at the two charities combined there were 45·5 normal to 1 abnormal. Next in frequency to the primitive presentation of the head come the *nates*, the proportion of which at both charities, compared with the primitive, has been as one in 153. After that come the footling cases being one 253·5; and next the face to the pubes, of which there were 42 instances as compared to the 12,156 primitive head presentations, or one case in 289·4. Proportionately to the number of labours there were nine cases of placenta prævia, six only of which required assistance, the other three having terminated naturally. Of purely arm pre-

sentations, there were five cases only at the Benevolent, and fifteen at the Dispensary, which gives a proportion of one case in 621. And it is curious to remark, with regard to all presentations in which the hand was in any way concerned, that they prevailed more frequently among the male than the female children of both charities, in the proportion of 21 to 8. I need not dwell further on the analysis of the presentations in the two tables, as they speak for themselves; and the inquisitive practitioner, by looking down the last two columns of each table, will find the proportionate rate of each of the several abnormal as compared with those of the normal presentations, together with the result of all the manual and instrumental labours as regards the children.

There is a presentation, however, among the rest which demands some special notice. It is the one entered in Table XI as 'Head, with Ovarian Tumour.' I shall only allude slightly to its history, as I have published the case *in extenso* in the 'Medical and Physical Journal,' vol. xlvii, p. 463, *et passim.* Elizabeth K—, æt. 35, the mother of four children, being again pregnant, applied for a midwife, complaining at the same time of very severe pains in the back and loins, and a bearing down, which induced me to examine particularly the region of the abdomen, when I discovered a moveable tumour, distinct from the enlarged uterus, about the size of a child's head, lying in the right hypochondrium. The tumour, as far as the advanced state of pregnancy would allow, could be shifted higher than, and on one side of, its usual position. The patient assured me she had had such a tumour, as well as a much smaller one on the left side, for two or three years; and she had been told by the medical man who had attended her in her last confinement that the larger tumour had materially contributed to the difficulty of her labour. Hence she was now full of apprehension at the approach of another confinement. The tumour was evidently ovaric. Three weeks before the full period of gestation, her suffering, especially from the sensation of bearing down, had become so great that she requested my

attendance. On examination per vaginam, I detected the fact that the head of the child and the tumour were descending together into the cavity of the pelvis. I felt that, unless I prevented the further descent of the tumour, or dislodged it altogether from its present position, considerable obstacle would occur at her delivery. How I contrived to push away from the pelvic cavity the moveable tumour, and fix it above the bladder and in front of the abdomen, a couple of inches below the umbilicus, under the *linea alba*, where I kept it fixed and immoveable by suitable bandages till the time of parturition, when the woman was quickly and safely delivered of a healthy child, my published narrative of the case fully describes. The most interesting feature of the case, however, was its sequela; for it was remarked that the tumour, even some weeks after parturition, had not altered its compulsory position, but remained fixed and prominent until seven weeks from her confinement, when, on being called to her in consequence of increased and more acute pain in the tumour, I found an inflamed, acuminated abscess, ready to burst, to which I ordered linseed poultices and warm fomentations to be applied frequently. At the expiration of two days the swelling broke, and a large quantity of white pus flowed out of the opening, followed by a cyst composed of a dense, white membrane, of great consistency yet supple, which, when filled with water, might be compared for size to the head of a full-grown fœtus, having an opening of the same diameter as that formed in the parietes of the abdomen through which it had escaped. I called one of my surgical colleagues and some medical friends to see the case, as we considered it interesting. Several smaller capsules followed the large one; they were of a brownish colour, dense, and intact, containing no fluid whatever, and presenting none of the characters of hydatids. Much hectic fever had been present during and after the suppuration, but the woman ultimately and completely recovered, continuing to nurse her infant. She again became pregnant one year after, and was safely delivered by one of our midwives of a live child.

Of the many inferences that naturally suggest themselves respecting this case, I shall not venture to offer any observation.

In again looking at both tables of passive labours, one broad fact appears prominent, namely, the near equality of the manual and instrumental labours, being 38 of the one, and 39 of the other, which gives for the two charities combined an equal proportion of one in 7 manual or instrumental labours. In the 277 cases of abnormal presentation, the proportion of stillborn children after passive labours has been one in 3·04.

The largest number of cases requiring turning have been those of arm presentation and placenta prævia; not fewer than 27 of the former having occurred, and 9 of the latter. In 7 cases of arm presentation the labour terminated actively. In the other 20 cases turning was had recourse to, and the tables show that of those 20 cases 2 required the further assistance of the forceps, and in one other of the vectis, after the body of the child had been brought down. The stillborn children under these several circumstances of arm presentations were 7, or one in 4 nearly, which is a somewhat more favorable proportion than that assigned in cases of turning by Dr. Robert Barnes, in his well-considered observations "On Turning in Labour," inserted in a recent number of the 'Lancet.' As regards placenta prævia, all I have to observe is, that in 3 cases, as stated in the table, the labour terminated naturally after I had ruptured the membranes to hasten delivery. The adhesion of the placenta over the os uteri was only partial in those cases except in one, and in that case, the labour-pains being very strong and incessant, accompanied by a large flooding, on an attempt being made to detach the placenta, with the view to turning, the whole of it was expelled at one throe, and the head followed. In the remaining 6 cases, the rules of practice so admirably laid down by a worthy commentator of old Paræus, the inventor, and of Puzos, the follower, of the practice of turning—I allude to the father of our excellent President, himself an able expounder of those rules—

were strictly followed. Upon that point there cannot be the semblance of a doubt. I only wish to add, that in the cases alluded to it was found that the feet presented in 3 out of the 6 cases, and that in one of these the forceps was had recourse to to extract the head after the body had been brought down.

I shall ask permission to make one or two more remarks on the two labour tables. It will be seen that at each of the charities 26 cases of face to the pubis occurred, and that whilst 20 of them at the Westminster General Dispensary, and 22 at the Benevolent, together 42 cases, terminated actively, the forceps was required in six cases, in one of which the mother had been three times pregnant before, and each time had had twins, stillborn, the present child being born alive; and in the remaining four cases craniotomy was had recourse to. In two of these, as already stated in a former publication of mine, the sacro-pubian diameter was only one inch and three quarters and one inch and five eighths. In the former I had the benefit of the late Dr. Merriman's assistance. And I may take this opportunity of publicly acknowledging how much I was indebted, during a long period of a laborious public practice, to the assistance kindly afforded me by gentlemen in the profession who were anxious to seek experience in a vast field of practice, and to whom I occasionally confided the management of cases—gentlemen several of whom have since earned for themselves a name and a high station among obstetrical practitioners in the metropolis, and whom I am proud to name—Dr. Robert Lee, especially, who took the labouring oar for me at both institutions during my professional absences in Russia and in Germany; Dr., now Sir Charles, Locock; Mr., now Dr., Henry Davies; the late Drs. Merriman and Ramsbotham; Dr. Edward Morton, the present Mr. Wade, and many others yet living and spread about the country.

Next to the cases of face presentation come those of the nates in our tables. Of these, in the two charities conjointly, we have had 79 cases; but they may almost be considered as normal presentations, for they are at once

converted into feet-presentations, either by spontaneous evolution or by the hooking of the inguinal bending, either with the fingers or the blunt hook. In three cases only of the 79, or 1 in 26·3, the children were stillborn.

Of feet presentations there were 48 cases, two only of which merely called for the aid of the forceps in consequence of the head being arrested in the cavity of the pelvis. In one case, when called, I found the feet born and the head arrested, the face being towards the pubis. I corrected the position with the left hand, gradually turning the body round with the right hand, and, with the finger in the mouth, extricated the head. This patient informed me that she had been delivered by craniotomy in her first two labours, and that, in the third pregnancy, Sir Richard Cross, on the supposition of her pelvis being distorted, owing to the history of her previous labours, induced premature labour at eight months. In the present instance the child was full grown, and the head passed freely. Craniotomists, perhaps, will take a lesson from this case.

The forceps has been employed altogether in twenty cases, that is, once in 621 of all the labours, or as 1 to 13·8 in the 277 abnormal presentations. This corresponds, as nearly as possible, with the Dublin proportion, according to Collins. Of course my remarks relate only to the two labour tables, and not to their appendices.

The vectis has been had recourse to in three cases, and the blunt hook in seven. The latter is a favorite instrument of mine. I look upon it as a mere elongation of my hooked index-finger. In nates presentations, and also to help in disengaging the shoulders after the head has passed, and there occurs a cessation of natural expulsive pains, the hook is invaluable. For, under any circumstance, as soon as the upper or lower half of the child has made its appearance, as a general rule, I never wait beyond a brief space of time to afford manual or artificial assistance, if I have reason to suspect that uterine action is at a standstill. Of the three cases of vectis I do not claim to have had anything to do with. They were cases attended by my friends.

Without entering into the merits of the keen dispute raging towards the end of the last century between Osborne and Bland, or between the pupils of Leake and Thomas Denman, who had attacked their master's practice and his three-branched forceps, I have always thought that where I could introduce the vectis, which is, in fact, one blade of the forceps, I could as well introduce the second, and thus expedite the delivery, instead of lingering over it by manœuvring with a lever or vectis. No doubt the cunning old Dutch Roonhüysen—who, I dare say, never read the works of Avicenna, Abucasis, or that of Rueff, of Zurich, in whose writings there are some rough sketches of an obstetrical forceps, and who certainly had not seen the Pompeian forceps discovered in our own times—considered it for his interest to conceal his invention of the vectis, and made a profitable use of it. But contemporaneously with him, towards the end of the seventeenth century, there lived as sharpsighted a practitioner, an Englishman, Chamberlayne by name, who used a *double* vectis, or forceps; and he kept his secret also of what was, after all, an adaption and not an invention, and made good profit by it. The ingenuity of Palfyn and Levret, however, and after them Smellie, had anticipated the divulgation of Chamberlayne's secret by Chapman, in 1734; and to that eminent and original English obstetrical master, Smellie, we are indebted for much more than the mere general adoption of the forceps. We owe to him the having first proclaimed the practicability of applying that instrument to the child while yet within the upper brim of the pelvis, and, consequently, the lengthening of the instrument for that purpose, of both which points my far-distant predecessor at the Westminster General Dispensary, Dr. Bland, strictly denied the possibility as well as the reality.

But these questions among us have long been settled, and the practice of employing a long forceps, and of applying it above the cavity of the pelvis, is a generally adopted one. Indeed, could our predecessors have contemplated the greater facility with which the longer forceps can be applied to the

upper pelvis, they would in the long run have used no other; and we should not have read of the many thousands of cranial perforations that have ensued during the long period that has elapsed between the first invention of the vectis and short forceps, and the adoption of the longer one. The Dresden and the Berlin schools employ the latter, and always early *in partu;* and what have been the results? That Carus, in 2549 labours, has applied the forceps 184 times, or one in 14 labours, with only 9 cases of craniotomy; while Siebold, in 2093 labours, had used the forceps 300 times, or one in 7 labours, and had only a single case of craniotomy! On this question, therefore, I entirely adopt the able and sagacious views of our colleague, Dr. Tyler Smith; and when the total number of *embryulcia* cases recorded in my two Labour Tables XI and XII is considered, it will be found that the practice of our two charities in that respect is three times and a half as favorable as that of Carus, and only one third less favorable than that of Siebold, being one in 1380 labours.

In an essay on the use of the forceps, with directions for the application of both the short and the long one, which I published in 1820, with a few cases, I strongly recommended, as preferable to all others, what is called Assalini's forceps, which I slightly modified. In my hands it has served both purposes. It is very handy, easier of application, and requires no cross-locking of the blades. It also gives a greater command over the fœtus to the operator, who is not puzzled with a right and a left blade. It is a curious fact that, up to the date of the publication here referred to, none of the latest writers on midwifery, subsequent to Smellie, had noticed the application of the forceps to the head, after the birth of the body of the child, or given any direction on the subject. Smellie was the first to employ the forceps under such circumstance, and evidently he considered himself to have been singular in that respect, as he says—"These two successful cases gave me great hope that the above method would be of great service." He attended two more cases afterwards. I followed his example, and gave in my

essay a full, detailed case out of several, illustrative of the manner in which the application should be accomplished. In that essay I dissent from the ordinary received canons respecting the use of the forceps, which, until lately, had been accepted as infallible, namely, that the head of the child shall have rested on the perinæum for six hours before we thought of applying the forceps, according to Denman, and that the forceps may be applied only when an ear of the child can be felt from the os externum. Both rules are bad, as far as they were intended to be exclusive.

The present report would not be complete, were I to omit a few words of explanation of the two appendices at the bottom of the labour tables. They exhibit what I call "accidents and morbid incidents during parturition," which I have preferred separating from the consideration of ordinary labours, whether active or passive; and the result of which, therefore, stand apart from those on which we have been all along descanting and calculating. Among these incidents the most terrible and alarming are hæmorrhage, (I mean irrespective of *placenta prævia*) and convulsions. Of the former not fewer than twenty-three cases occurred at the two charities. In twenty the labour was suffered to proceed naturally, in one the child was turned, in two others instruments were applied. Of convulsions there were only four cases. I never hesitated to deliver in such cases the moment a sufficient passage, either for the hand or instruments, can be obtained. On the present occasion the four cases were delivered passively. Two instances of complete suppression of uterine action—almost a paralysis of the womb, as it were—occurred, in which delivery was effected by the forceps, and in two cases of syncope delivery by hand was performed. The single case of locked jaw was a singular one. The woman had been bitten by a dog in her thigh a week before her full time of gestation. It alarmed her considerably, and when labour commenced her teeth began to chatter violently and her whole frame shook incessantly, so as to frighten the attendants. Being sent for, I noticed that the patient herself was in a state of intense

alarm and trepidation, with a fixed conviction that the bite of the dog would kill her. The labour was far advanced, the head being about entering the cavity of the pelvis. Contrary to my expectation, instead of finding the uterine orifice rigid and every fibre contracted, every part was flabby and relaxed, except the membranous sac, which protruded greatly and was much distended. This I punctured, when a large escape of liquor amnii took place, the quivering of the body and the chattering of the teeth suddenly ceased, and the jaws became fixed. Some time was lost in fetching my forceps, with which I had come unprovided, as I had not been told the woman was in actual labour. During this period I strove in vain, by frictions, by the application of strong ammonia to the nostrils and of considerable heat to the jaws, to make an impression on them. All proved in vain. I remarked that whenever I touched the cervical spine she gave signs of suffering pain. When the instrument arrived, I delivered her instantly, and the jaws relaxed in half an hour, before the placenta was removed.

Of the large number of instances of retained placenta marked in the labour table of the Western General Dispensary, I cannot speak with confidence. They are so called in their written returns by the midwives, and I must add that I have generally found them accurate and truthful; but as in a majority of these cases the midwives themselves remove the afterbirth after having waited some time for it, and they only called me when, after the lapse of three or four hours, they found the case an obstinate one, I would not offer so large a number as twenty-four cases of retained placenta as a reliable number. Cases of this kind rarely occur after passive labour, and are more frequent in active labours of the first subdivision, namely, those completed within twelve hours. Omitting from the account all such cases, as well as the six instances of abnormal pelvis, it is found that the "accidents and morbid incidents" during parturition in 12,423 labours have occurred in the proportion of 1 to $385\frac{1}{10}$th.

There is, lastly, another branch of my report which ought

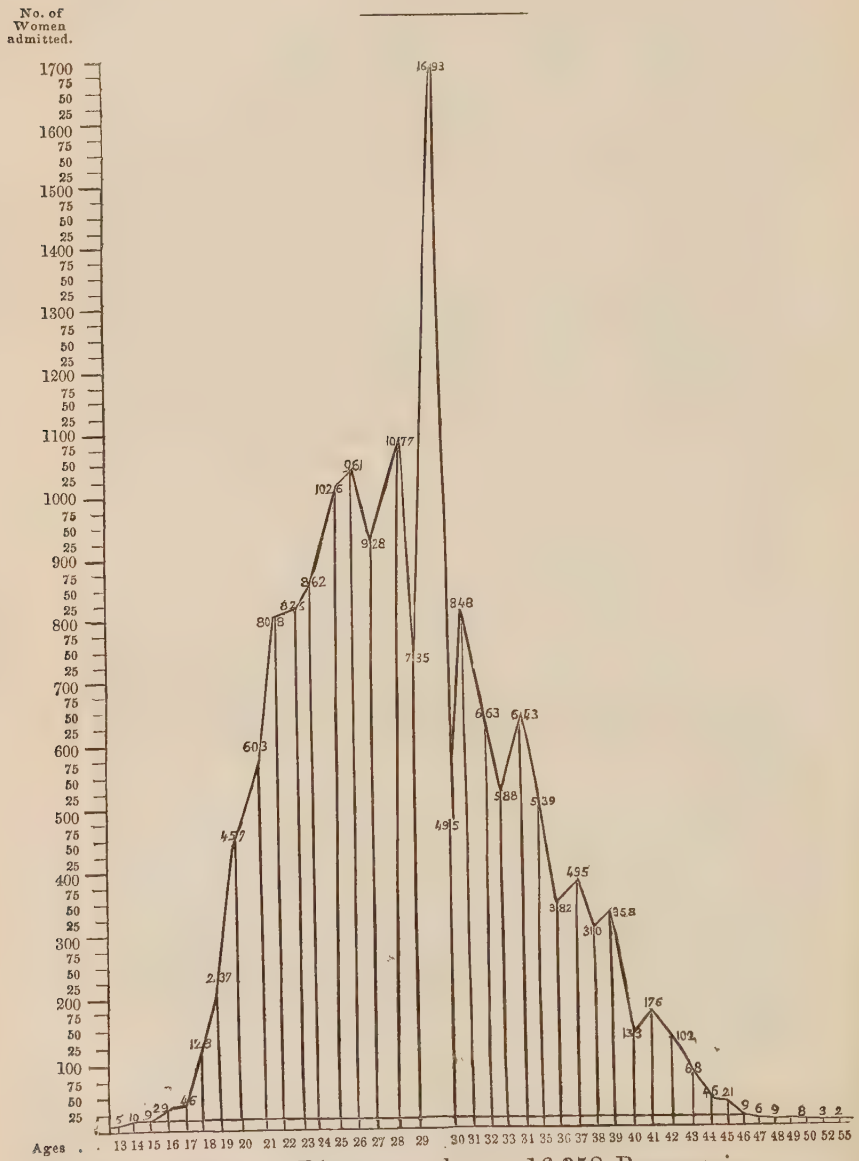
properly now to follow. I allude to the occurrence of abortion. But such a subject is far too important, in my opinion, to be treated at the fag end of a paper already extended beyond the more ordinary limits allowed by the Society, and, I fear, beyond also the limits of their patience. For this I crave forgiveness; the more so, as I feel that I have probably treated a congeries of facts and conclusions in a manner not the most enlivening, being full of figures and results, presenting little that is novel, although, as figures, they may be considered useful. But the subject of abortion, viewed under the several aspects in which I represented it in two former reports and in my 'Graphic Illustrations,' is one which, when treating of the power of propagation among the females of the industrious classes, or indeed of any class, it is impossible to overlook. Indeed, I will say of all works on reproduction or population which overlook such a subject, as I said elsewhere of the annual report of the Registrar-General, which professed to ignore in his calculations the number of stillborn children, that there runs through all their conclusions a fatal error, which detracts from their value. And I regret to have to apply that remark to the conclusions contained in a very elaborate and curious essay by one of our distinguished colleagues, on the 'Procurative Power of Women,' which omits in its ingenious speculations the element "*abortion.*" I contend that without it all attempts at calculating and duly estimating the power of reproduction in the human female must necessarily be imperfect.

This subject, then, together with the narrative of some of the most remarkable diseases of the pregnant and parturient women admitted at the two institutions during the period here represented, as well as of their infants, which can offer any interest from their nature and their treatment, may perhaps form the matter of a second memoir, should I be spared another season, to be submitted to the Obstetrical Society at a future period.

DIAGRAM

Showing the Alternations in the Productive Power of Women at different Ages.

TO ILLUSTRATE TABLE I.



The present Diagram embraces 16,258 Pregnancies.

WESTMINSTER GENERAL DISPENSARY AND BENEVOLENT INSTITUTION.

Table I.

Showing the number of Women admitted at the Westminster General Dispensary between the 19*th of December,* 1817, *and the* 31*st of December,* 1829, *amounting to* 9266. *Also the number of those admitted at the Benevolent Lying-in Hospital between September,* 1826, *and the* 31*st of December,* 1836, *amounting to* 6992. *The two united being* 16,258.

Distinguishing their ages.

First Decade.	Age.	Number Admitted.	Second Decade.	Age.	Number Admitted.	Third Decade.	Age.	Number Admitted.
First of ordinary ages.	16	29	Second of ordinary ages.	26	961	Third of ordinary ages.	36	539
	17	46		27	928		37	382
	18	128		28	1077		38	405
	19	237		29	735		39	314
	20	457		30	1693		40	358
	21	603		31	495		41	133
	22	808		32	848		42	176
	23	825		33	663		43	102
	24	862		34	538		44	68
	25	1026		35	643		45	46
1st De.	205	5021	2d De.	305	8631	3d De.	405	2523
Exceptional ages.	13	5				Exceptional ages.	46	21
	14	10					47	9
	15	9					48	6
							49	9
							50	8
							52	3
							55	3(?)
Totals	247A	5045W		305A	8631W		752A	2582W

N.B.—The total number of women in this Table amounts to 16,258, but the total number admitted by the two charities in the period amount to 22,427. The difference consists in the number of women whose age was not ascertained or registered.

Let $a =$ the age.
$b =$ the number of women at each age.
$c =$ the products $a \times b$.
$d =$ the sum of all b.

$$\text{Then } \frac{a \times b + c}{d} = x \text{ average age.}$$

MEMORANDUM.—I divide the normal age of propagation in women into three decades or periods of ten years each—the first beginning at 16 years, and ending at 25; the second commencing with the 26th year, and ending with the 35th year; while the third begins with the 36th, and ends with the 45th year.

The sum of years in each decade is a number differing from that of the preceding or following decade by one hundred years, namely, 205, 305, 405.

The ages both anterior and posterior to the three normal decades I call exceptional; the former I call juvenile, the latter senile.

While the first of these periods embraces only 42 years, the second contains not less than 347 years, or eight times and a fraction as many years as the juvenile period.

N.B.—This Table does not embrace the women who have had multiple births.

By the above Table we find that the 16,258 women had lived 473,030 years at the time of their pregnancy, and that their average age was $29\frac{3}{5}$, but adding the multiparous women, it becomes 30.

WESTMINSTER GENERAL DISPENSARY.

Appendix No. 1 to Table I.

Classification of Pregnant Women according to the ages at which they presented themselves for admission.

Age.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	Total.
13	0	0	0	1	1	0	0	0	0	0	0	0	2
14	1	0	2	2	3	0	1	0	1	0	0	0	10
15	0	1	1	2	1	0	1	1	2	0	0	0	9
16	1	0	1	3	1	2	2	4	7	2	2	1	26
17	0	1	1	4	5	1	1	6	3	0	4	3	29
18	6	3	4	5	9	8	6	9	8	9	6	7	80
19	2	8	7	10	5	16	8	17	17	19	20	16	145
20	18	12	14	21	24	30	21	27	19	26	31	28	271
21	22	23	24	34	21	29	26	20	35	37	47	37	355
22	22	33	24	46	39	26	32	44	45	61	58	56	486
23	25	32	36	39	25	35	42	31	43	48	51	49	456
24	23	21	36	52	39	36	31	38	36	50	63	45	470
25	45	47	41	52	62	39	48	54	58	58	63	45	612
26	33	35	53	43	56	42	38	41	44	58	60	46	549
27	48	33	36	44	40	48	43	34	45	48	55	36	510
28	44	43	47	52	45	39	42	43	52	60	97	45	609
29	31	25	24	36	32	44	29	29	31	38	40	44	403
30	56	55	77	78	76	72	99	82	72	115	117	95	994
31	17	20	19	21	21	17	16	27	18	24	28	21	249
32	25	32	48	37	37	45	41	35	40	42	57	40	479
33	25	23	35	37	28	34	36	25	33	29	51	28	389
34	24	20	20	27	33	28	25	23	28	34	39	33	334
35	21	22	28	27	24	48	31	25	36	26	31	33	352
36	15	20	28	32	28	23	15	22	24	34	32	22	295
37	17	16	13	19	24	17	17	13	12	20	24	16	208
38	21	13	17	19	18	20	17	16	13	20	19	13	206
39	12	17	16	20	14	13	10	13	13	12	22	10	172
40	17	18	13	20	22	10	26	25	20	20	33	16	240
41	11	8	6	4	3	5	5	8	8	5	10	7	80
42	5	6	8	5	9	10	7	6	12	9	10	9	96
43	6	1	6	4	4	5	6	3	4	13	6	5	63
44	1	1	3	5	3	3	5	1	3	3	3	3	34
45	2	0	2	2	0	3	2	3	3	1	1	1	20
46	1	0	0	3	1	0	0	0	2	1	2	2	12
47	0	1	0	0	0	0	1	1	2	0	1	0	6
48	0	0	0	0	2	0	0	0	0	1	0	0	3
49	0	1	0	0	0	1	0	1	2	0	0	0	5
50	0	1	1	0	0	0	0	0	0	0	1	0	3
51	0	0	0	0	0	0	0	0	0	0	0	0	0
52	1	0	1	0	1	0	0	0	0	0	0	0	3
53	0	0	0	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	1	0	0	0	1

BENEVOLENT INSTITUTION.

Appendix No. 2 to Table I.

Classification of Pregnant Women according to the ages at which they presented themselves for admission.

Age.	1826.[1]	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.	1835.	1836.	Total.
13	1	0	1	0	0	0	0	1	0	0	0	3
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	3	1	0	1	0	0	0	0	0	1	6
17	0	1	2	5	2	1	1	1	3	1	0	17
18	1	5	6	4	11	1	6	7	4	2	1	48
19	3	11	8	16	11	12	11	9	6	3	2	92
20	10	17	25	27	28	25	14	13	16	8	3	186
21	12	27	30	28	28	33	22	21	19	17	11	248
22	14	40	39	34	42	40	42	25	18	19	9	322
23	8	57	41	42	40	38	35	35	28	30	15	369
24	13	44	35	52	57	44	39	30	46	17	15	392
25	19	42	40	51	64	52	47	33	35	21	10	414
26	9	38	40	44	46	50	66	35	43	20	21	412
27	15	61	42	41	52	46	45	43	35	23	15	418
28	17	58	57	39	56	44	58	34	43	28	14	468
29	8	36	36	29	34	37	37	40	26	19	20	332
30	22	68	71	83	103	87	75	66	51	55	18	699
31	8	22	25	25	26	48	29	18	23	9	11	246
32	10	42	35	31	43	33	57	37	33	34	14	369
33	9	30	22	27	27	31	39	49	16	14	10	274
34	13	32	24	34	25	31	29	23	22	11	10	254
35	11	32	27	36	29	41	26	25	25	23	16	291
36	8	30	25	31	27	28	27	22	26	11	11	244
37	6	23	20	18	18	22	22	15	15	10	5	174
38	7	14	25	23	35	27	12	13	16	15	12	199
39	2	11	10	9	14	13	26	17	20	11	9	142
40	2	19	22	22	23	20	23	22	16	9	8	118
41	5	11	9	2	6	5	6	6	3	0	0	53
42	0	7	12	4	9	11	8	10	11	5	3	80
43	0	3	4	2	8	6	6	3	3	2	2	39
44	2	4	6	4	4	4	7	1	1	1	0	34
45	1	2	5	3	5	3	2	4	0	0	1	26
46	0	1	2	0	0	0	2	3	1	0	0	9
47	0	0	0	0	0	0	1	0	2	0	0	3
48	1	0	0	0	0	1	0	0	0	0	1	3
49	0	1	2	0	0	0	0	1	0	0	0	4
50	0	0	0	0	1	0	1	1	1	0	1	5
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	1	0	0	1	0	0	2

[1] From the 26th of September only in this year.

WESTMINSTER GENERAL DISPENSARY AND BENEVOLENT INSTITUTION.

Table II.

Summary of the Single Births, male and female, at the Lying-in Branch of the Westminster General Dispensary during a period of eleven years, viz., from January, 1818, *to December,* 1828, *in the case of* 7717 *pregnant women, from whom a proper return was duly registered; and at the Benevolent Institution during a period of seven years, viz., from May,* 1822, *to* 31*st of December,* 1828, *in the case of* 4761 *pregnant women, the result of whose labour was properly registered.*

Westminster General Dispensary.

Out of a total of 9266 women admitted.

Years.	Boys.	Girls.	Total.
1818	323	267	590
1819	329	246	575
1820	338	315	653
1821	389	361	750
1822	374	313	687
1823	380	339	719
1824	347	316	663
1825	305	315	620
1826	380	310	690
1827	415	396	811
1828	505	454	959
11 years	4085	3632	7717

N.B.—The multiple births are not included in this Table.

Benevolent Institution.

Out of a total of 6992 women admitted.

Years.	Boys.	Girls.	Total.
From May 1822	297	256	553
1823	446	373	819
1824	409	382	791
1825	379	353	732
1826	403	380	783
1827	357	295	652
1828	239	192	431
7 years	2530	2231	4761

N.B.—The multiple births are not included in this Table.

The two charities united, 12,478.

N.B.—On inspection of the two tables it will appear that between 1821 and 1828 the two charities acted together.

REMARKS on the condition in which some of the children were born:

As regards the Westminster General Dispensary.

In five instances there was something remarkable:

Born alive. The multiple births not included.

- One child had one arm shorter than the other.
- One child had a cleft palate; spina bifida; no testicles, either externally or internally; urethra impervious; bladder containing urine.
- One child was born dropsical (ascites).
- One child had deformed feet.
- One child born alive (of a mother who died on the seventh day of phthisis), weighed eleven pounds, and measured fourteen inches.

As regards the Benevolent Institution.

Born alive. Not referable to the multiple births.

- One child was deformed in various ways (case published in the 'London Medical and Physiological Journal,' vol. li, p. 175, by Dr. Morton.
- In one child there was spina bifida.
- One child cleft palate; labium leporinum; the half of upper right jaw wanting.
- One child depressed left parietal bone.
- One child the same, with the longitudinal edge of the bone pulling the membranes of the brain and scalp (over the longitudinal suture) on the stretch, protruding upwards, while the left eye was protruding also. The mother was delivered with instruments on a previous pregnancy.

WESTMINSTER GENERAL DISPENSARY.

Table III.

Number of Stillborn Children out of the total 7717 *born between the* 1*st of January,* 1818, *and the* 31*st of December,* 1828, *at the Westminster General Dispensary, distinguishing those who were prematurely born, that is, some weeks before the full period of gestation.*

Year.	Stillborn.	Of whom premature.	Year.	Stillborn.	Of whom premature.
1818	10 boys	2 at 7 months.	1824	11 boys	——
	7 girls	1 at 8 months.		12 girls	——
1819	12 boys	——	1825	5 boys	1 unknown.
	7 girls	2 at 6 months.		2 girls	——
1820	5 boys	——	1826	5 boys	——
	8 girls	——		7 girls	1 at 7 months.
1821	10 boys	1 at 8 months.	1827	6 boys	1 at 5½ months.
	14 girls	——		10 girls	1 at 5½ months.
1822	9 boys	1 at 6 months.	1828	9 boys	1 at 7 months.
	12 girls	1 at 8 months.		10 girls	——
1823	12 boys	——			
	9 girls	——			

Twelve of the total number of stillborn were born after passive labour.

Total, 192 children stillborn, of whom 94 were boys and 98 were girls. Of the whole number 13 were born before the full time of gestation, namely, 7 boys and 6 girls.

WESTMINSTER GENERAL DISPENSARY.

Table IV.

Number of Children born alive before the full time.

Year.	Children born.	Period.	Year.	Children born.	Period.
1818	2 girls	Uncertain.	1823	——	——
1819	1 boy 5 girls	Uncertain.	1824	——	——
1820	1 boy	At 7 months.	1825	1 boy	At 5½ months.
1821	1 boy 2 girls	At 7 months. At 6 months. At 7 months.	1826	1 girl	At 5½ months. Lived only one hour.
1822	1 girl	At 7 months.	1827	——	——
			1828	——	——

Four boys and 11 girls.

Total, 15 children born before the full time by some weeks, and alive.

The multiple births are not included in either Table III or IV.

WESTMINSTER GENERAL DISPENSARY.

Table V.

Mortality among the 7717 Women delivered during the period above specified at the head of Table III.

1818. After active labour . . . 0 After passive labour . . . 4	**1824.** In labour (Lee) . . . 1P Metritis, 10 days . . . 1A
1819. After active labour . . . 2 After passive labour . . . 2	**1825.** None.
1820. After metritis; active labour . 1 Died the 10th day.	**1826.** After puerperal fever and passive labour . . . . . 1 (Arm turned by Dr. Lee.)
1821. Fever after active labour . . 1 Died the 7th day.	**1827.** Convulsions after active labour . 1
1822. Phthisis after active labour . 1 Died within the month.	**1828.** Convulsions and puerperal mania 1 3 hours after delivery . . 1 (Both by Dr. Lee.)
1823. Soon after active labour . . 1 After passive labour; forceps . 1	

Total mortality in eleven years, 17, viz., 8 after active, and 9 after passive, labours.

BENEVOLENT INSTITUTION.

Table VI.

Number of Stillborn Children out of the total 4761 *born between the* 22*d of May,* 1822, *and the* 31*st of December,* 1828, *at the Benevolent Institution, distinguishing those who were born prematurely, that is, some weeks before the full period of gestation.*

Year.	Stillborn.	Of whom premature.	Year.	Stillborn.	Of whom premature.
1822	7 boys.	1 at 5½ months.	1825	13 boys.	2 at 6½ months.
	4 girls.	——		4 girls.	1 at 7 months.
1823	13 boys.	——	1826	11 boys.	——
	9 girls.	1 at 6 months.		6 girls.	1 at 5 months.
1824	10 boys.	1 at 7 months.	1827	3 boys.	——
	4 girls.	——		1 girl.	——
			1828	——	——

N.B.—In three cases the children, 1 male and 2 females, were born at 6 months, alive.

Thirteen of the total number of stillborn were born after passive labours.

Total number of children stillborn, 85; of whom 57 were boys and 28 girls, of whom 7 were born before the full time of gestation, namely, 4 boys and 3 girls.

N.B.—The multiple births are not included in this Table.

BENEVOLENT INSTITUTION.

Table VII.

Mortality among the 4761 Women delivered during the period specified at the head of Table VI.

1822. After active labour . . . 1 After passive labour . . . 2* * 1 placenta prævia, turned. (Locock.) 1 flooding. (Ramsbotham.)	**1826.** After active labour; locked jaw . 1 After passive labour (attended by parish doctor) . . . 1
1823. After active labour; phthisis . 1 After passive labour . . . 0	**1827.** After active labour . . . 1 After passive labour . . . 0
1824. None.	**1828.** None.
1825. After active labour; peritonitis . 1 After passive labour . . . 0	

Total mortality in seven years, 8, viz., 5 after active, and 3 after passive, labours.

Appendix to Tables V and VII, being the aggregate mortality among the lying-in women of both charities.

Women died after active labours . . . 13 } 25
„ after passive labours . . . . 12 }
Proportion of deaths in 12,423 labours, 1 in 500.

WESTMINSTER GENERAL DISPENSARY.

Table VIII.

Summary of Multiple Births during a period of eleven years, from 1st of January, 1818, to the 31st of December, 1828.

(*Carefully revised by going over the Register twice.*)

BINARY BIRTHS.

1818.	1822.	1826.
2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.
2 4 3	3 5 6	3 2 0
9	14	5

1819.	1823.	1827.
2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.
3 1 1	4 3 4	2 1 1
5	11	4

1820.	1824.	1828.
2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.
3 6 7	0 2 1	2 1 9
16	3	12

1821.	1825.
2 B. 2 G. 1 B. 1 G.	2 B. 2 G. 1 B. 1 G.
0 4 4	0 2 3
8	5

Table VIII—*continued.*

Total Binary Births.

YEARS.	2 B.	2 G.	1 B. 1 G.
1818	2	4	3
1819	3	1	1
1820	3	6	7
1821	0	4	4
1822	3	5	6
1823	4	3	4
1824	0	2	1
1825	0	2	3
1826	3	2	0
1827	2	1	1
1828	2	1	9
11 years	22	31	39

Total cases of Twins.

22
31
39
—
92
—

Being in the proportion of $8\frac{6}{10}$ per annum out of 7812 women.

TERNARY BIRTHS.

1821.
—
3 B.

The mother, Mary Gregory, delivered 15th of October, No. 9, King's Head Court, Broadway. On the register 310926.

1824.
—
1 G. 2 B.

The mother, Mary Edwards, delivered 27th of July, No. 28, Rathbone Place. On the register 33566.

1827.
—
1 B. 2 G.

The mother, Mary Slade, delivered 11th of February, No. 3, Princes Row. On the register 35534.

Total produce of Multiple Births in eleven years.

				Total Children.
Binary . . .	83 B.		101 G.	193
Ternary . . .	6 B.		3 G.	
	89	+	104	

Proportion of twins to annual labours, $8\frac{6}{10}$ in $710\frac{1}{10}$, or 1 in $84\frac{9}{10}$ labours.
Proportion of triplets, 1 in 2579 labours.

BENEVOLENT INSTITUTION.

Table IX.

Summary of the Multiple Births during a period of seven years, from the 22d of May, 1822, *to the* 31*st of December,* 1828.

(*Carefully revised by going over the Register twice.*)

BINARY BIRTHS.

1822.			1825.			1828.		
2 B.	2 G.	1 B. 1 G.	2 B.	2 G.	1 B. 1 G.	2 B.	2 G.	1 B. 1 G.
1	2	4	3	3	0	2	2	0
	7			6			4	

1823.			1826.		
2 B.	2 G.	1 B. 1 G.	2 B.	2 G.	1 B. 1 G.
2	2	1	3	3	2
	5			8	

1824.			1827.		
2 B.	2 G.	1 B. 1 G.	2 B.	2 G.	1 B. 1 G.
0	6	2	2	2	2
	8			6	

Total Binary Births.

YEARS.	2 B.	2 G.	1 B. 1 G.
1822	1	2	4
1823	2	2	1
1824	0	6	2
1825	3	3	0
1826	3	3	2
1827	2	2	2
1828	2	2	0
7 years.	13	20	11

Total cases of Twins, 44.

Being in the proportion of $6\frac{1}{4}$ per annum out of 4806 labours, or $6\frac{1}{4}$ in 687 labours = 1 in 100, nearly.

Table IX—*continued.*

TERNARY BIRTH.

1827.

2 B. 1 G.

The mother, Hannah Kemp, No. 10, Bedford Court, Chancery Lane, delivered 17th of April, 1827. Number on the register, 3394.

Total produce of Multiple Births in seven years.

				Total Children.
Binary . . .	37 B.		51 G.	91
Ternary . . .	2 B.		1 G.	
	39	+	52	

Table X.

Showing the combined results of 12,478 pregnancies at the two institutions, of which there are accurate returns in both registers.

Uniparæ.

Number of Pregnancies.	Produce.		Alive.		Stillborn.		Of whom prematurely		Of whom alive, though prematurely born.		Alive and ill-conformed.
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	Sexes combined.
12,478	6615	5863	6464	5737	151	126	11	9	5	13	10

Appendix to the Table.

Pluriparæ.—Number of pluriparous women who have had twins, 136, or 1 in $91\frac{17}{22}$; who have had triplets, 4, or 1 in $3119\frac{1}{4}$. Children produced, 284.

Of whom were alive, and at the full time, 252, or 1 in $1\frac{8}{63}$; alive, and before the time, 7, or 1 in $7\frac{4}{7}$; } or 1 stillborn in 10·216.

Stillborn at the full or before the time, 25, or 1 in $11\frac{4}{25}$.

Sex of twins.—Both boys, 35; both girls, 51; a boy and a girl, 50. Total, 136 = 272.

Sex of triplets.—Three boys, 1; two boys and one girl, 1; one boy and two girls, 1; one girl and two boys, 1. Total, 4 = 12.

WESTMINSTER GENERAL DISPENSARY.

TABLE XI.—*Enumeration of the Active and Passive Labours, distinguishing the Manual and Instrumental Labours, during a period of eleven years,* 1818 *to* 1828.

Nature of the Presentation at the commencement of Labour.	In how many cases.		Of which were Active Labours.	Of which there were Passive Labours.					Proportion of the Presentations to the total number of Labours.	Result to the Children after Passive Labour.	
				Terminated by Hand.	Terminated by Instruments.						
	Boys.	Girls.			Forceps.	Vectis.	Hook.	Perforation.		Alive.	Still-born.
Head in its primitive or normal position	3967	3559	7526	—	—	—	—	—	981 in 1000	—	—
Head in its 2d, 3d, and 4th positions, impacted	5	1	—	—	2	1	—	3	1 in 1278	3	3
Forehead across, impacted	3	1	1	—	3	—	—	—	1 in 1918	3	—
Head and hand	1	2	—	2	1	—	—	—	1 in 2557	3	—
Head with ovarian tumour	1	—	—	1	—	—	—	—	1 in 7671	1	—
Face to the pubis	15	11	20	—	3	—	—	3	1 in 295	2	4
Hand and arm	11	4	7	7	1	—	—	—	1 in $511\frac{2}{3}$	6	2
Hand and foot	1	1	—	2	—	—	—	—	1 in 3035	1	1
Hand and funis	3	—	—	3	—	—	—	—	1 in 2557	2	1
Hand, foot, and funis	1	—	—	1	—	—	—	—	1 in 7671	1	—
Nates	32	14	43	2	—	—	1	—	1 in $166\frac{7}{10}$	3	—
Nates and funis	1	—	1	—	—	—	—	—	1 in 7671	—	—
Funis	2	2	4	—	—	—	—	—	1 in 1918	—	—
Feet	14	11	23	—	2	—	—	—	1 in $306\frac{2}{3}$	2	—
Knees	1	—	—	1	—	—	—	—	1 in 7671	1	—
Knee and foot	—	1	—	1	—	—	—	—	1 in 7671	1	—
Placenta prævia	4	2	3	3	—	—	—	—	1 in 1278	2	1
Seventeen presentations.	4062	3609	7628	23	12	1	1	6	Average rate: 1 act. lab. to 52 nor.	31	12
	7671										

N.B.—The multiple births are not included.

Appendix to Table XI.

Number of Pregnancies during which morbid incidents intervened.

Incidents.	In how many cases.	How terminated.			Proportion to the whole number of Labours.
		Naturally.	Mechanically.		
			Hand.	Instruments.	
Hæmorrhage	17	15	1	1	1 in 451¼
Convulsions	3	—	1	2	1 in 1278
Locked jaw	1	—	—	1	1 in 7671
Syncope	2	—	2	—	1 in 3835
Retained placenta	22	—	22	—	1 in 348⅝
Abnormal pelvis	4	—	—	4	1 in 1917½
Incidents (6)	49	15	26	8	1 in 156½

BENEVOLENT INSTITUTION.

TABLE XII.—*Enumeration of the Active and Passive Labours, distinguishing the Manual and Instrumental Labours, during a period of seven years,* 1823 *to* 1828.

Specification of the Presentation at the commencement of Labour.	In how many cases.		Of which were Active Labours.	Of which there were Passive Labours.					Proportion of the Presentation to the total number of Labours.	Result to the Children after Passive Labour.	
					Terminated by Instruments.						
	Boys.	Girls.		Terminated by Hand.	Forceps.	Vectis.	Hook.	Perforation.		Alive.	Still-born.
Head in its primitive or normal position	2466	2164	4630	—	—	—	—	—	974¼ in 1000	—	—
Head in its 2d, 3d, and 4th positions, impacted	1	1	—	—	1	1	—	—	1 in 2376	2	—
Forehead across, impacted	3	1	—	—	2	—	—	2	1 in 1188	2	2
Head and hand	—	1	—	1	—	—	—	—	1 in 4752	1	—
Face to the pubis	15	11	22	—	3	—	—	1	1 in 183	2	2
Hand and arm	3	2	—	3	1	1	—	—	1 in 950⅔	4	1
Hand and foot	—	—	—	—	—	—	—	—	——	—	—
Hand and funis	2	1	—	3	—	—	—	—	1 in 1584	1	2
Hand, foot, and funis	—	—	—	—	—	—	—	—	——	—	—
Nates	14	31	36	4	—	—	5	—	1 in 105¼	6	3
Nates and funis	1	3	3	—	—	—	1	—	1 in 1188	—	1
Funis	1	1	2	—	—	—	—	—	1 in 2376	—	—
Feet	12	13	25	—	—	—	—	—	1 in 190	—	—
Knees	—	—	—	—	—	—	—	—	——	—	—
Knee and foot	1	1	—	2	—	—	—	—	1 in 2376	1	1
Placenta prævia	3	—	—	2	1	—	—	—	1 in 1584	2	1
Sixteen presentations.	2522	2230	4718	15	8	2	6	3	Average rate: 1 ab. lab. to 39 nor.	21	13
	4752										

N.B.—The multiple births are not included.

Appendix to Table XII.

Number of Pregnancies during which morbid incidents intervened.

Incidents.	In how many cases.	How terminated.			Proportion to the whole number of Labours.
		Naturally.	Mechanically.		
			Hand.	Instruments.	
Hæmorrhage	6	5	—	1	1 in 792
Convulsions	1	—	1	—	1 in 4752
Total suppression of uterine action	2	—	—	2	1 in 2376
Retained placenta	2	—	2	—	1 in 2376
Abnormal pelvis	2	—	—	2	1 in 2376
Incidents (5)	13	5	3	5	1 in 365½

TABLE XIII.—*Exhibiting, at one view, the number of Active and Passive Labours, the nature of the presentation, accidents, and morbid incidents during parturition, with the mode in which such Passive Labours were terminated, at both Lying-in Institutions, from* 1818 *to* 1828 *inclusive.*

A.

Total number of Labours.	Nature of the Presentation.	In how many cases.	Proportion to the whole.	Active Labours terminated naturally.	Passive Labours terminated by Hand.	Passive Labours terminated by Instruments.
12,423 pregnancies in which the presentation and termination were ascertained.	Head in its normal position	12,156	—	12,156	—	—
	Head in abnormal positions	21	1 in $591\frac{5}{10}$	1	4	16
	Face to the pubis	52	1 in $238\frac{9}{10}$	42	—	10
	Hand, and three complications	29	1 in $438\frac{3}{10}$	7	19	3
	Nates	91	1 in $136\frac{5}{10}$	79	6	6
	Feet, and two complications	54	1 in $230\frac{5}{100}$	48	4	2
	Funis, and one complication	11	1 in $1129\frac{4}{11}$	10	—	1
	Placenta prævia	9	1 in 1380	3	5	1
		12,423	Gen. proportion: 1 abnormal to 270 normal presentats.	12,346	38	39

B.

Cases in which accidents or morbid incidents occurred to call for mechanical aid.	In how many cases.	Terminated without assistance.	Terminated by mechanical aid. Hand.	Terminated by mechanical aid. Instruments.
Hæmorrhage	23	20	1	2
Convulsions	4	—	2	2
Lock-jaw	1	—	—	1
Syncope	2	—	2	—
Total suppression of uterine action.....	2	—	—	2
Retained placenta ...	24	—	(24)	—
Abnormal pelvis ...	6	These are included in the previous Labour Tables.		
Total incidents, 7	62	20	19	7

Subdivision B of Table XIII contains cases included in subdivision A, but requiring separate treatment.

Total hand labours, 46 } In the whole number of
" of instrumental labours, 52 } labours, 12,423.
Retained placenta not noticed.

Proportion of hand labours, 1 in 218.
" of instrumental labours, 1 in 270.
" of passive to active labours, 1 in $103\frac{9}{10}$.

N.B.—The multiple births are not included in the present Table.

CASE

OF

RUPTURED PERINÆUM,

AND

BIRTH OF THE CHILD BETWEEN THE OS VAGINÆ AND ANUS.

BY

J. BAKER BROWN, F.R.C.S. (Exam.)

Read May 2d, 1860.

On April 22d, 1860, Mr. Lawrence, of Wandsworth, requested me to see, with him, Mrs. —, æt. 20, who was delivered a fortnight since of her first child. The labour progressed satisfactorily until the head was on the perinæum, when Mr. Lawrence, finding the os vaginæ did not dilate, and that the pains were very violent, and that the head of the fœtus was pressing severely on the perinæum, sent for a neighbouring practitioner, who suggested the use of the forceps. Before he could return with them, however, the perinæum gave way between the os vaginæ and the anus, and the child was expelled completely through the opening. In three or four days a deep slough came away, and the edges of the wound began to look healthy. The bowels were confined by opium, and poultices were applied to the perinæum.

On examination, I found a large opening, admitting three fingers, in the centre of the perinæum, the edges of which looked healthy. On passing my finger through the os vaginæ I found a firm, hard, unyielding band, in place of the elastic constrictor vaginæ. This was evidently the cause of the unusual laceration. Assisted by Mr. Lawrence and my son,

Mr. Arthur Brown, without chloroform, I revivified the edges of the wound, and introduced two deep, iron-wire sutures. The laceration had evidently involved a few of the superficial fibres of the sphincter, but they had healed satisfactorily. I did not, therefore, divide the muscle, as in the ordinary operation for ruptured perinæum, but I cut through the fourchette, and the parts were so hard and almost cartilaginous that the patient was not conscious of my cutting it. I ordered opium, to keep the bowels quiet, for a week, and the patient to have generous diet, and to suckle the child thrice in twenty-four hours.

April 29th.—Removed the sutures, and found the perinæum was sound and deep, and it is evident that she will be none the worse for the accident at the end of the month.

Practical remarks.—It appears to me that in cases of this kind it would be right, at the time of the severe pressure on the perinæum, and when the os vaginæ is not at all dilating, to divide it freely on each side with a blunt-pointed bistoury, so as to prevent the possibility of this peculiar lesion.

CASE

OF

CONGENITAL HERNIA (?) OF THE LIVER.

BY

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Read May 2d, 1860.

On April 12th a child, æt. three weeks, was brought to me, with the following history.

At birth a large swelling, the size of a cricket-ball, was noticed in the region of the umbilicus, the cord entering it a little to the right of its centre; it was generally round, of a darkish hue, the skin covering it being thin and glazy; the child otherwise was reported healthy and well, and did not appear to suffer at all from it. About a week after birth, however, the surface of the mass began to darken and shrivel, and this continuing, the child was brought to me. I then found the tumour, as above stated, in a state of dry gangrene; the cord was still adherent, though quite black, but the line of demarcation round the base of the tumour was distinct and well defined. The child appeared not to suffer at all from it; its bowels were quite regular, and the motions of healthy colour; no vomiting, no evidence of tenderness of the abdomen, and the mass could be moved freely and with impunity. I thought it some morbid growth connected with the umbilicus, which, during intra-uterine life, had been supplied with blood from it, and now, from the alteration of the circulation, was mortifying, and might possibly drop off, without any further bad consequences to the child. In this, however, I was mistaken; the skin only came away with the remains of the cord, leaving the surface still gangrenous; a large abscess then formed in the temporo-

maxillary region, which burst and discharged freely into the mouth. The child gradually sank, and died twelve days after I saw it. During this time the bowels continued quite regular, the motions healthy, no vomiting, and no evidence of any abdominal mischief.

On making a post-mortem examination I found nearly the whole of the liver was extra-abdominal, constituting the tumour in question, its surface being firmly adherent to the walls of the containing sac, which also held, firmly bound, portions of the stomach and small intestines, but through which the canal was quite pervious. The cæcum was situate in the right hypochondrium, the colon descending thence tortuously, but all on the right side, into the pelvis, where it ended in the rectum. There was no proper sigmoid flexure, and no mesocolon on the left side. The kidneys and spleen were normally placed. The inferior vena cava was drawn forward from the spine by the misplaced liver, and entered the thorax just behind the sternum; it afterwards entered the right auricle. On making section of the tumour it appeared that the gangrene was quite superficial, not having extruded through the walls of the sac. The contained liver remained, to all appearance, quite healthy.

It thus appears that the gangrene was a mere extrusion of the normal process of the death of the cord to the integuments covering the protruded viscus; how that displacement came about is not so easy to determine. Was it the result of some local peritonitis occurring early in fœtal life, gluing together the abdominal wall and the surface of the liver? or was its origin even more remote than this, and due to a mistake in position, so to say, in the very earliest development of the liver? I am disposed to think the latter affords the best explanation. That the liver was developed on the *anterior* instead of the *posterior* aspect of the intestinal tube, and its further development took place in that direction. This view seems favoured by the fact that the duodenum, whence, as we suppose, the liver is primarily developed, was found adherent to the posterior surface of that organ. The situation of the cæcum lends also additional strength to this opinion.

PHLEGMASIA DOLENS.

BY

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Communicated by Dr. RIGBY.

Read June 6th, 1860.

I beg to offer, with the kind permission of the Society, a few observations of a practical tendency in regard to the ætiology of phlegmasia dolens. Of course, in a short paper, it is impossible to enter at all fully into such a wide subject as is presented by the disease in question, and I shall therefore confine myself to its more leading features, and the more cogent arguments supporting any new view put forth.

At the present day all authorities seem to agree in considering phlegmasia dolens as essentially an obstruction to the free circulation of blood and lymph, either or both, through the affected limb or part. Some hold the cause of such obstruction to be a phlebitis, the effect of the absorption of morbid fluid, or the extension of inflammatory action from contiguous parts; in fact, a purely local disease. Others, again, look upon the phlebitis as the result of a general and peculiar blood state, and in this case the disease is, of course, a part only of, *i.e.* a secondary matter in, the actual disease present.

Very recently ('British Medical Journal,' July, 1859, and 'On the Coagulation of Blood in the Venous System during Life,' Cambridge), another view has been promulged by Dr. Humphrey, who believes the disease to be due to a "preternatural coagulability of the fibrine of the blood, and a loss of its natural solvent."

All existing interpretations appear to me too limited, accounting only in part for the phenomena of the disease. Such I shall endeavour to show clinically.

Let it be clearly understood what is here meant by phlegmasia dolens. Reference is not made to any disease which is *œdema* only, but to that affection, whether occurring in the puerperal or non-puerperal state, which possesses the characteristic, non-œdematous, shining, white, tense, elastic swelling. Now, under what circumstances does such a state of things occur?

PHLEGMASIA DOLENS.

- 1. As the sole (local) disease.
  - 1. During pregnancy. (Puzos, Meigs.)
  - 2. After labour, especially after artificial extraction of the placenta. (Chatto, 'Med. Gaz.,' September, 1839, Lee, Churchill.)
  - 3. After abortion, especially where the ovum, &c., has been left behind. (Dewers, Denman, Burns, White, M'Clintock, Churchill.)
  - 4. After removal of polypi. ('Med.-Chir. Trans.,' vol. xvi, Lawrence, Lee, Case 14, 'Ovarian Disease,' Ramsbotham, 'Med. Times and Gaz.,' December, 1852.)
  - 5. After removal of fibrous tumour. (J. B. Brown, Simpson, Hutchinson, 'Med. Times and Gaz.,' Amussat, 'Rev. Med.,' 1841.)
  - 6. After lithotomy. (Simpson, 'Med. Times and Gaz.,' 1859.)
- 2. As part of a *general* disease.
  - Virus diseases.
    - 1. Puerperal fever. (All authorities agreed.)
    - 2. Continued fever. (Tweedie, Graves, Stokes.)
      - Typhoid. (Risdon Bennett, Graves.)
      - Typhus. ('Lond. Med. Gaz.,' vol. ii, 1837-38, Dr. Mackenzie, of Glasgow.)
    - 3. Dysentery. (Dr. Mayne.)
    - 4. Erysipelas. (Tyler Smith and others.)
    - 5. Snake-bite. (Case recorded in the paper.)
    - 6. Iliac abscess (pyæmia). (Copeland, Young.)
    - 7. Injury to arm (erysipelas). (Dewers.)
  - Disease of nutrition proper.
    - A. Phthisis (ulceration of intestines). (Forbes, Holberton, Lee, Thompson, Cursham.)
    - B. Cancer.
      - Prostate and bladder. (Ramsbotham.)
      - Uterus. (Lee, Rigby, Lawrence, Copeland, Willan, Blundell.)
      - Stomach. (M. Blachez.)
      - Mamma. (Macfarlane, Lee, Winn.)
      - Iliac synchondrosis. (Case recorded in the paper.)
      - Mediastinum. (Rigby and others.)
    - C. Preternatural coagulability of the fibrine of the blood. (Dr. Humphry.)
- 3. Complicating other local diseases.
  - Iliac abscess. (Bell, Young, Copland.)
  - Suppressed menstruation. (Tommasini, Lee, M'Clintock.)
  - Hæmorrhoids. (Halford.)
  - Hepatic disease. (Monneret and Leudet.)
  - Dislocation of shoulder. (Sir A. Cooper.)

Now, analysing carefully the preceding list, can we generalise a cause capable of explaining the phenomena, in their totality, of phlegmasia dolens? Is there more than one method of its production, or is there any principle clearly defined upon which its evolution surely depends?

I think so. The scrutiny and comparison of the details of the cases comprised in the foregoing list seem to yield the deduction that phlegmasia dolens is occasioned by an impediment to the return of blood *and lymph* from the affected part, and that the causes of such impediment may be, so far as regards the vessels, *extrinsic* or *intrinsic*.

The extrinsic causes comprise all cases of pressure on the vessels from tumours, abscess, &c.

The intrinsic all produce *coagulation*. They are—

1. Phlebitis.
   - *a*. Septic or virus in origin. — Coagulation is here secondary to phlebitis.
   - *b*. Non-septic(?), really thrombosis, with general symptoms, the result of virus action. — Phlebitis (?) is here secondary to coagulation if non-septic phlebitis occurs.
2. Introduction of morbid matter of all kinds in large amount, and pretty rapidly. In this case there is no phlebitis, but simply thrombus.
3. Idiopathic (?) said to be preternatural coagulability of the fibrine of the blood, proved to be a cause of venous coagulation, but not of phlegmasia dolens.
4. Phlebitis and thrombus conjoined, or rather virus action and thrombus (*vide* 1 *b* above).

First. What are the vessels concerned in the production of the disease? It appears clearly, not the veins only, but also the lymphatics. Recent observers ignore the influence of the latter, and acquiesce in the opinion put forth by Dr. Mackenzie in his interesting essay, in the thirty-sixth volume of the 'Medico-Chirurgical Transactions,' viz., that the affection is the result of a blood *phlebitis*. Dr. Simpson, the most recent writer, adopts this view. Dr. Mackenzie's titlepage, "On the Pathology of Obstructive Phlebitis," I

presume, contains the denial of the participation by the lymphatics of any share in the ætiology of the disease.

It has been satisfactorily proved by Dr. Mackenzie that mere obstruction of the femoral vein will not *per se* produce phlegmasia dolens. The same was shown by Dr. Mackfarlane in regard to the axillary vein ('London Medical Gazette,' 1837-38.)

In obliteration of the femoral vein circulation of the venous blood of the lower limb takes place through the veins of the gluteal and pelvic regions, thence by the internal iliacs to the vena cava, and this the state of things in experiments upon the femoral vein does not represent the condition of the vascular channels in phlegmasia dolens. In the latter case the mischief commences in the pelvic veins; their current is checked, the obstruction travels up, and, reaching the common iliac, influences the circulation of the lower limb, both as regards the main channel and the most efficient collateral tract.

Dr. Mackenzie's obliterated femoral, I apprehend, then, does not correctly represent the degree and kind of impediment which exists in the white leg. I am aware that sometimes the pelvic veins have been found to be free and patent, but then the common iliac has been noted to be plugged up, which effectually interferes with the main and collateral currents. Pathology teaches us that some other condition superadded to venous obstruction is needed to produce *true* phlegmasia dolens. Ample evidence of this is contained in the history of cases of pressure upon the veins in pregnancy, and cases of tumour of other kind. Bouchut, in an article in the 'Gazette Medicale,' January, 1845, has given a good number of cases of venous coagulation observed by himself, in conjunction with others occurring under the notice of Rayer, Bouillaud, Andral, and others. Virchow, again, in treating of thrombus, and lately Dr. Humphrey ('British Medical Journal,' 1859), have also furnished evidence of the like kind, and although these authorities have adduced these cases for a different purpose, yet they contain important testimony, as confirmatory of

the opinion that all that results from venous obstruction is *œdema*. Bouchut has particularly noticed that the lymphatics in these cases are healthy.

That the lymphatics play an important part in phlegmasia dolens seems evident from several considerations; and—

1st. Observers—*e. g.* Capuron, Petit, Gardien, Ferriers, White, Hamilton—long ago noticed the frequency with which the lymphatics were involved in cases of white swelling, and no one more so than Cruveilhier. On the other hand, Bouchut and others have remarked prominently their healthy condition in venous obstruction (œdema). Bouillaud ('Dic. de Med. et Chir. Prac.,' Art. "P. Dolens)" insisted upon this point very strongly, and in later times Drs. Rigby and Ramsbotham especially have recognised the influence of the lymphatic disease. The glands in many cases are inflamed and enlarged (Hamilton and Ramsbotham). Dr. Mackfarlane called attention to the fact of their being very much diseased in the dissections he made of carcinoma mammæ (where phlegmasia dolens had supervened), so as to interfere with the returning venous current from the limb. The same may be said of cancer uteri (Raigne). Delorme has met with the mesenteric glands, even, particularly enlarged.

2dly. In the more severe and acute cases positive signs of the inflammatory state of the lymphatics is present oftentimes, viz., the red lines marking out the course of these vessels, which are swollen, hard, and painful. In cases of augeioleucitis, we are aware, the swelling differs from that of œdema; we call it brawny and hard.

3dly. Phlegmasia dolens occurs particularly in diseases in which the lymphatics are specially active. Examples—after labour, in cancerous, tuberculous, and dysenteric ulceration, &c.

4thly. In cases of obstruction of the innominate veins the swelling differs from ordinary œdema, and approaches more nearly that of phlegmasia dolens, and this is probably due to the obstructed lymphatic circulation.

5thly. The history of the disease "anæmia lymphatica," so capitally described by Dr. Wilks, confirms this view, for

in it extreme pallor of the surface is a marked feature, with concomitant enlargement of the lymphatic glands. The skin is peculiar, as it is in the white leg, being hot, white, and pungent.

6thly. The evident *directio ratis*, in amount of connective tissue and lymphatic distribution. Zimmerman originally put forth the opinion that the lymphatics were agents in introducing fibrine into the general blood-current, the fibrine coming from the tissues. Virchow, in his 'Cellular Pathology,' adopts this view. If there be any relation between the lymphatic fibrine and cellular tissue, it is easy to understand how obliteration of the lymphatics may give rise to the peculiar character of the swelling of phlegmasia dolens, on account of the retention of the fibrinous material in the tissues, the cellular especially, which is so rich in lymphatics. At all events, the authority of Virchow (and Simon) warrants us in admitting the probability of such a cause.

Dr. Rigby's well-known case ('Medical Gazette,' October, 24th, 1835), where no disease but that of the lymphatics existed apparently, is exceedingly interesting in the several particulars just noted.

It appears, from clinical inquiry, that the veins have most to do with the swelling, and the lymphatics with the tenseness and colour, of the affected part in phlegmasia dolens; that for the production of phlegmasia dolens it is necessary that both veins and lymphatics should be involved; the obstruction to the lymphatic circulation is followed by the retention of lymph and the cellular tissue (which is so amply supplied by these vessels). The cellular tissue itself seems to become hypertrophied, the lymph also gelatinizing in its interstices. When I say hypertrophied I mean, rather, that relative waste does not keep pace with relative supply, the arterial blood continuing to feed the areolar structures, and the obstructed lymphatics being unable to remove the excess, and thus keep the balance of nutrition correct.

Let me next take up the much-debated and much-worked question,—How is obstruction produced?

The cause may be external to the vessels, and in this case there need not be any coagulation in the interior of the latter. In the few cases that have been recorded in which phlegmasia dolens has resulted from extrinsic sources, viz., pressure upon the veins and lymphatics, the latter have been influenced tolerably high up, and this appears necessary in order that the collateral circulation may be influenced, as well as the main lymphatic trunks.

I saw, some few months since, in the country, a mass of encephaloid involving the parts about Poupart's ligament, especially the inguinal glands. The skin was not involved as yet, but the integuments of the thigh around the mass were brawny and tense, on account of the minute venous obstruction, of a bluish colour; but below the upper third of the thigh the limb was enlarged, and the skin white, tense, and elastic.

In Dr. Copland's dictionary will be found two cases related, the one of iliac abscess, the other of cancer of the lumbar and inguinal glands, in both of which instances white leg ensued, and the vessels of the lower limb were found to be not diseased in their interior. In the 'London Medical Gazette,' 1845, a case of iliac abscess is recorded by Mr. Bell, where a disease somewhat like phlegmasia dolens occurred, and where, the matter being evacuated, the swelling of the limb presently subsided.

During the last year I met with a very instructive case. The patient, a middle-aged gentleman, was the subject of symptoms exactly resembling nephritic colic; the pain in the back which existed by and by radiated through the gluteal region and the limb of the affected side; the pain was of neuralgic character, and seemed to be due to pressure of some kind upon the sacral plexus. Presently an attack of phlegmasia dolens gradually evolved itself, and simultaneously a tumour appeared and could be felt on the right side of the belly, over the iliac vessels. Curiously enough, the tumour in a short time subsided; and at the same time, *pari passu,* the phlegmasia dolens went, the tumour reappeared on the opposite side, near the mesial line. Now,

the post-mortem exhibited a mass of cancerous disease originating in the sacro-iliac synchondrosis; the growth had extended down into the pelvis and up behind the bladder, and this accounted for its disappearance from the one and its reappearance on the opposite side, as above stated. No doubt existed that the phlegmasia dolens was due to the pressure exerted by the tumour on the iliac vessels and lymphatics, which were involved. The evidences of pressure were distinct, especially as shown by the peculiar, severe gluteal and sciatic pain, which subsided when the tumour altered its site. Nothing abnormal was noted in regard to the condition of the iliac and other vessels, post mortem, in their interior; and at no time during life, though specially examined for, was there any tenderness or hardness of the vessels of the thigh. In these cases of phlegmasia dolens, resulting from extrinsic pressure, coagulation within the vessels has not, at present, been proved to have existed, and it is important to notice that the disease is a purely local one; there are no constitutional symptoms related to the local state, as cause and effect; pain is the chief ailment, and the vessels themselves are intrinsically free from disease.

(Refer to Sir Astley Cooper's work 'On Dislocations,' and a case of the kind from dislocation of the shoulder will be found.)

Puzos and Dr. Meigs mention cases occurring during pregnancy, evidently the result of pressure. Next come those cases, which are by far the most numerous, in which the immediate cause of the obstruction, so far as the vessels are concerned, is intrinsic. The causes ranking under this head all produce coagulation within the vessels. (*Vide* Tabular View, p. 203.)

And, first, of phlebitis, including, of course, conjoined inflammation of the lymphatics.

The researches of Virchow, and instances detailed by Copland, Young, Rigby, Casper, Fraser, Smeets, Jacquemier, Simpson, Kiwish, Humphry, and others, establish the fact that inflammatory changes in the vessels may be altogether

absent, and I think it may be asserted that these are really less common than is usually supposed.

Coagulation and redness are not, alone, sufficient evidence of inflammatory change.

How very rarely has post-mortem examination disclosed the existence of the characteristic pink hue, the distinct, vascular arborizations, or fine, capillary injection; or, in the walls of the vessels, the developed products—lymph, pus, the granular corpuscles, &c. (between the internal and middle coats); or true ulceration, which are alone distinctive of phlebitis.

It appears to me that whenever true phlebitis (including under this head augeioleucitis) occurs, it is always the result of the action of a virus, and, except during the prevalence of epidemics of puerperal fever, erysipelas, and the like, it is comparatively rare, as the sole cause of phlegmasia dolens. No doubt the action of a virus upon the coats of vessels will induce coagulation, but there is oftentimes a sufficient cause for the thrombus independently of, and prior to, the virus action, and that is (as will directly appear), sudden absorption of extraneous material. The virus may be absorbed also, and produce its effects generally, independently of the cause of the local disease, and I hold that many cases of phlegmasia dolens are really complex cases of this kind, the general symptoms being the result of virus action; and I base my inference upon the general state of system, the general hygienic condition of the patient, the rigors at the outset, the existence of severe constitutional symptoms, out of proportion to the local ailment—abscess being a very frequent accompaniment, pyæmia not uncommon, and the pulse peculiarly high and irritable. It is here that pus (if found at all) is detected in the veins and lymphatics; the glands are involved, perhaps suppurating; the disease is acute, rapid, and grave, and it is in these cases that a fatal termination ensues. Peritonitis is frequently conjoined; the first occurrence of pain and abscess is often in the calf of the leg. Every standard work contains cases of this type (good instances are afforded by Dr. Lee's cases in the 'London

Medical Gazette,' September, 1842). Such cases contrast strongly with others in which pain and swelling are the only tangible symptoms. Amussat, Cæsar Hawkins, Rigby, Simpson, and others, have put on record cases occurring in conjunction with pyæmia. I deem it of moment to notice this, because Dr. Humphry, in his recent pamphlet, states that phlegmasia dolens has no relation to pyæmia. Here is a point. Can absorption of virus give rise to coagulation without the intervention of inflammatory changes? The only fact bearing upon this point that I know of fell under my notice some two years since, in Hampshire. A lad, æt. 12, was getting over a bank, and was bitten by an adder in the fleshy part of the thumb; he felt at once faint, and directly his arm began to swell. I saw him shortly afterwards. In so little time as twenty minutes after the receipt of the bite the arm was appreciably swollen; there was no pain at any time. The next day the case presented a perfect and complete specimen of phlegmasia dolens; there was not the least pyrexia, no tenderness, no pain, no red lines running up the arm, nothing indicative of the least inflammatory action. The boy did well, though the arm was enormously swollen at one period. Did phlebitis occur? Can the case, in any of its features, be explained except by the occurrence of pure and sudden thrombus?

I hasten on, however, to the class of cases to which I specially wish to call attention. I refer to that category in which constitutional symptoms are not prominently, if at all, marked, in which the onset of the disease is ill-defined by warning prodromata. Where the malady runs a quiet course abscess is rare, though the enlargement and uselessness of the limb are equal to, aye often greater than in, the severer type, and where post mortem there are only evidences of coagulation present, none of inflammatory change anywhere, in fact, obliteration of vessels in various stages. The local mischief itself does not kill, but death results from accident. Example—detachment of clots, &c. Virchow's observations most clearly establish the existence of such a pathological state. Now, Dr. Humphry has advanced

the hypothesis that the thrombus (or coagulation) is due to preternatural coagulability of the fibrine of the blood. In December, 1857, Dr. Graily Hewitt read a paper before the Harveian Society, in which he partly forestalled Dr. Humphry in endeavouring to show that in the puerperal state there are certain conditions in action promoting coagulation of the blood, generally and locally.

To these remarks it must be replied that phlegmasia dolens occurs in diseases in which the fibrine is below par, and in the non-puerperal state of course.

Dr. Richardson has recorded a case of thrombus in extreme purpura. In the acute specific disease, in cancer, phthisis, there is a diminution in the fibrine, and yet phlegmasia dolens and coagulation of blood in the veins (thrombus) is common in these cases. Again, in abortion and early pregnancy, where there is positively a decrease in the fibrine, white swelling occurs. As yet, until chemical analysis prove the point, preternatural coagulability of fibrine, as a cause of phlegmasia dolens—not of venous thrombus, but of phlegmasia dolens—is hypothetical in the strict sense of the term, I apprehend.

Dr. Humphry's observations and cases (*vide* his pamphlet on 'The Coagulation of Blood in the Veins during Life') clearly satisfy one that, in enfeebled and cachectic and anæmic states, where the blood is in a favorable state for coagulation (watery), its saline constituents being unable to hold the fibrine in solution, coagulation in the veins is likely to occur, especially where gravitation and the action of a feeble heart come into play. Example—in the lower limbs. But in phlegmasia dolens the lymphatics are obstructed, and they contain a smaller amount of fibrine than the veins, and hyperinosis, as regards the lymphatics, has yet to be proved.

Well, then, granted that sometimes, at least, preternatural coagulability of the fibrine of the blood may be a cause of venous coagulation, this fibrinous increase being absolute or relative (*e. g.* diminution of salts), and aided in its effects by gravitation and the action of a feeble circulation, we still have to account for the mass of cases in which the

fibrine is not increased in amount, absolutely or relatively, indeed, in cases in which it is frequently below par. And we also find that this hypothesis will not account for phlegmasia dolens, but œdema only, and that but rarely.

Under what circumstances does phlegmasia dolens, presenting evidence (both ante and post mortem) of coagulation alone, occur? After ordinary labour, especially where the placenta has been left behind (Churchill, Chatto), or after its artificial extraction; after abortion, especially in cases where the ovum has been left behind; after the removal of polypi, tumours of the uterus; in fevers, dysentery, snake-bite, phthisical ulceration of intestines, cancer, hæmorrhoids; in all these cases we find two conditions associated—wound, offering facility for absorption, and morbid fluid ready to be absorbed. Now, if by any means a cause should come into play by which sudden and large absorption should be occasioned, there would be great reason to expect coagulation in the absorbing vessels (as experiment tells us). I shall endeavour to prove that such causes there are, and that the result indicated does take place.

It can in no wise be denied that the parturient woman is a subject apt for the occurrence of thrombus; there is hyperinosis, the uterus offers a denuded stop, its veins are thin, osmosis is easy, the lymphatic act and circulation are active in removing the disintegrating uterus in conjunction with the veins, &c. These constitute an analogous condition to that stage in which phlegmasia dolens is wont to occur elsewhere, I mean the ulcerative stage and kind of disease, *e. g.* dysentery, cancer, phthisis; so much so, that we should not expect it to occur where wound is absent, except from extrinsic pressure. This close relation of wound in the one case, phlegmasia dolens, and the absence of it in the other, œdema, is a contrasting difference in the pathology of the two states; in other words, where wound is, the lymphatics are involved.

Now for the culminating point—the cause of the rapid absorption. I have been particularly struck in the cases that have come under my notice from the outset by the

occurrence of notable hæmorrhage or profuse discharge of other kind, and I find, from close inquiry, that the reminiscence of the practice of others well able and qualified to give an estimation of the point affords the like result. I have been desirous for some time to ascertain if there be any relation between the two phenomena—discharge and phlegmasia dolens. My belief is, that the cases which cannot be accounted for by the existence of phlebitis or pressure are due to simple coagulation, the result of tolerably rapid absorption of morbid fluid ; this excess of absorption over and above what is natural being induced by the occurrence of notable sudden discharge, the latter being the culminating point in the causation. We do find present, facility for rapid absorption, wound, and morbid fluid, in the cases in which phlegmasia dolens of the type under discussion occurs. Of course this is at issue with Dr. Humphry, who, in his recent pamphlet, says—" Certainly there seems no reason to attribute the affection to an introduction of pus or other morbid fluid into the circulation."

That " large losses favour absorption" is a well-admitted axiom. Dr. Ramsbotham, writing in 1835, said—" Women who have suffered from weakening discharges, and particularly those in whom a profuse uterine hæmorrhage has taken place before or after delivery, are by far the most frequently the subjects of the affection" (phlegmasia dolens). " The great proportion of cases I have myself seen have appeared subsequently to large losses of blood during labour." Merriman, in speaking of placenta prævia, says he has known phlegmasia dolens follow delivery under such circumstances on many occasions. Dewers, Davis, noticed the same coincidence. On the other hand, undoubted authorities have markedly stated that they believe loss of fluid to have no particular (special) influence. Examples—Churchill, Tyler Smith, &c. But attention must be paid to the particular class of cases now spoken of. I mean that in which the local disease is as well marked as ever it is, and yet the general state is not affected in proportion by any means.

In seven of this class of cases, which have come under

my notice, hæmorrhage occurred, the labours were lingering and painful, and coagula abundant, with offensive discharge, in most of them. Evidence is wanting upon this matter of sudden loss, and I wish to direct attention for future inquiry. It is clear that the white swelling may not supervene until some time after the occurrence of loss of fluid, and yet the two may be related. That is to say, not until, and not unless, the subsequent coagulation reach the iliacs and main lymphatic.

In Dr. Davis's celebrated case of Caroline Dun there was "profuse discharge" before and after the birth of the child, and also in the case of Jane Elliot, reported by Dr. Davis in 1820, who, on the twentieth day, was "seized by violent purging," and ten days afterwards, phlegmasia dolens occurred.

In Dr. Simpson's case, lately reported in the 'Medical Times,' there was considerable hæmorrhage during the first stage of labour.

In the 'Medical Times and Gazette,' October 29th, 1859, is a case related by Dr. West, where, after an easy labour, the placenta was retained three hours and a half, during which time the woman lost a considerable amount of blood, and became insensible, so as to be quite uncertain how the placenta was removed. Pain in the abdomen and diarrhœa attacked her, and phlegmasia dolens then ensued.

If cases die, they usually die of virus poison. (Example —puerperal fever.) Cases of simple coagulation do well, and are rarely reported, and the evidence of the state of the lochial discharge and occurrence of profuse discharge in these particular cases is very, very meagre—a post-mortem of such a case a curiosity. It becomes a difficult matter to infer correctly in the complicated cases (of virus action and thrombus conjoined) how much belongs to each. But we may go to a class of cases offering much less perplexity, I mean to phlegmasia dolens occurring in cancer (uterine or other). Here putrid fluid and wound are present, the lymphatics are active, and hæmorrhage to a notable amount is the rule. Let me refer to the records of Dr. Lee, in his

work on uterine and ovarian diseases. Take Cases 6, 14, 15, 17, 21, 26, 27, 28, all of which became complicated by phlegmasia dolens. The hæmorrhage was "most profuse," and the discharge "fetid." The same was noted in cases recorded by Drs. Rigby, Lawrence, &c. In a great majority of the cases of cancer uteri recorded by various authorities the post-mortem has exhibited obliteration of veins and lymphatics in different degrees, but the obstruction had not travelled up as yet sufficiently high to affect the current of the limb, and hence white swelling had not appeared.

I have before mentioned cases occurring under the notice of Dr. Macfarlane, where the lymphatics and veins were extensively involved in conjunction with mammary cancer and phlegmasia dolens of the upper limb. It must not be forgotten that the latter may occur before the possible occurrence of discharge, and the existence of putrid fluid ready to be absorbed before the ulcerated surface has been produced; but pressure seems to be the real cause of obstruction here, for the veins do not contain coagula, as a rule. It is in mammary cancer that we obtain very strong evidence that the implication of the lymphatics is necessary to the full evolution of phlegmasia dolens.

M. Blachez read a case before the Paris Anatomical Society last year, in which a large cancerous ulceration existed at the pylorus, phlebitis (?) of the vena cava, iliacs, and right femoral veins being found at the post-mortem. It appears that thrombus was taken to be evidence of phlebitis; no mention was made of the state of the glands, lymphatics, or hæmorrhage.

In dysentery, fevers, after removal of polypi, we must admit the occurrence of the essential conditions of evolution of phlegmasia dolens, viz., wound, discharge of sudden and profuse kind, and putrid excretions.

Two cases of white swelling in connexion with tuberculous ulceration of the intestines are reported by Mr. Holberton ('Medico-Chirurgical Transactions,' vol. xvi, p. 70). The first was attacked by diarrhœa, attended by violent tenesmus; the patient had four to eight discharges till death, and a

few days after the attack of diarrhœa, &c., phlegmasia dolens occurred, the post-mortem disclosing large patches of ulcerated intestine.

In Dr. Forbes's case the patient had violent diarrhœa. I infer, from the post-mortem history of tuberculous intestinal ulceration, that where œdema only occurs after severe diarrhœa ulceration is not severe, not extensive, in other words the lymphatics are not largely involved.

Coagulation in the veins and lymphatics seems to be produced in the way indicated; where œdema only occurs, the veins only are implicated; in true phlegmasia dolens, veins and lymphatics. In passing, let me refer to the interesting conditions called portal phlebitis, usually associated with cancerous disease, for confirmatory evidence. Now, the pathological state is that of thrombus not of phlebitis; sudden discharge (hæmorrhage) and offensive fluid are present. Malmsten has put on record a case of the kind occurring in connexion with epithelioma of the stomach. Lantesson, again, has brought forward another case where the vena cava was blocked up. Mayer, Hasse, Virchow, Rokitansky, Redfern, Murchison, have all related instances of so-called cancerous phlebitis. Mr. Quain has published a case of cancerous phlebitis (?) in conjunction with osteoid of the femur.

Virchow distinctly states that he has examined the lining membrane, and no phlebitis has existed. In dysentery, M. Monneret and others have found the cava blocked up.

Now, cancerous portal "phlebitis" (?) has been observed by Bouillaud, Hasse, Schonbein, Rebard, Dance, Leudet, the evidences of true phlebitis being deficient.

No one has explained how the coagulation is brought about. The iliacs are to be found in a similar condition to the portal vessels after the removal of fibrous tumours. Dr. Black, in regard to the vena cava, and M. Guillot, in 1838, in regard to the pulmonary veins near tuberculous cavities, have given further instances. In all these cases we have offensive fluid present, with sudden loss. Leudet calls attention particularly to the suddenness of the attack in these

cases; the local ailment is unaccompanied by constitutional symptoms of phlebitis, the pulse is low, abscess is rare, pain occurs suddenly at the very time and place we should expect coagulation to have taken place—points these are in favour of the view here taken in regard to the causation of the affection. Again, we find the vessels affected are those leading from the breach of surface.

A really instructive case of thrombus produced by sudden loss is to be found reported by Dr. Frey, of Mannheim, in the 'Gazette Médicale de Paris,' January 4th, 1845. The patient took violent purgatives, and had forty motions one night and twenty next day, got better, and subsequently passed twenty motions by night, and sixteen the following; then died. During life the pulse was low, rigors were absent, of peritonitic symptoms there were none. The post-mortem disclosed a healthy thorax, a vena cava inferior blocked up by coagula, with the communicating veins in a like condition, and in communion with collections of cheesy matter here and there, especially in the liver. In this case there was no evidence of virus action. No wound was present in the intestines; there was very little fluid beyond mucus in the latter. The case seems to me a most typical example of thrombus, the effect of rapid absorption caused by rapid loss. There being no ulceration, no implication of lymphatics, and hence œdema only.

In the 'Lancet,' February 18th, 1860, Dr. Brinton makes some remarks upon an œdematous condition of a patient's leg in chlorosis. There is also a case of dysentery, with hepatic abscess and obliteration of the iliac veins, under the care of Drs. Jeaffreson and Martin. The report says: "For a week before his admission he had profuse perspirations, which were quickly followed by the appearance of an hepatic tumour." Again, the report says: "For the last week he has suffered from most profuse perspiration." He had sudden pain in the calf of the leg, and œdema came on; tenderness of the femoral vein, which was cord-like; he had diarrhœa for fifteen days. The post-mortem gave hepatic abscess, thrombus of the left external iliac and vena cava, with no

sign of inflammatory change in the vessels. The pulse was not high; constitutional symptoms were nil; skin cool; no peritonitis, ante or post mortem, discovered.

Another case, under Dr. Barker, had dysentery eleven weeks, "with great hæmorrhage from the bowels. During the continuance of this he was suddenly seized with a stitch of the right side, so severe that he rolled on the ground with pain, and from that time he was slightly jaundiced, and a tumour appeared in the liver; was punctured, and he got well."

Dr. Humphry, in his pamphlet, Bouchut, and many others, furnish a mass of valuable cases. I must return from this digression, however.

Are we sure that the presence of morbid or offensive fluid in phlegmasia dolens is not an assumption? The latest writer on the subject, Dr. Simpson, 'Medical Times and Gazette,' 1859, says "that the lochia are usually fetid." I need but refer to authorities, and to the cases of cancer, dysentery, phthisis, removal of polypi, fevers, &c., for confirmation upon this point.

I believe we must infer that coagulations which do not reach the iliacs are very frequent in cases where hæmorrhage and fetid discharge are associated, on account of the very common presence of phlebitis in the pelvic veins; the same line of remark holds good in the case of the hæmorrhoidal and pulmonary veins. I infer this also from the fact that those pelvic symptoms which usually precede phlegmasia dolens (I mean sudden pain, sensations of weight, &c., achings, &c.), have occurred pretty suddenly in cases not followed by phlegmasia dolens, and also from the circumstance of finding the pelvic veins frequently obliterated.

Lastly. If we analyse carefully the epidemics of virus disease, puerperal fever, and erysipelas especially, we do not find coagulation in the veins to be a common feature, and remembering that in the cases in which it does occur putrid discharge and hæmorrhage are very common (and to substantiate which assertion I shall take another opportunity), it seems not improbable that the coagulation itself, in many

cases, may be really due to the action of the two latter, and the constitutional symptoms to the virus.

It is very clear that there is a contrasting febrile and non-febrile form of phlegmasia dolens; the former being characterised by severe rigors at the outset, high pulse, fever, tendency to form multiple abscess, erratic character of pain, acute formation of pus, erythema, diffuse secondary local inflammations of organs, general prostration, phlebitis, and augeioleucitis, all of which tell the tale of septic influence. Phlebitis, I doubt not, may result from virus action, but the category which has true phlebitis for the cause of obstruction in phlegmasia dolens appears to me very small.

Looking, now, retrospectively, I think we may represent the state of things I have been hurrying over with such scant justice as follows:

Œdematous disease.	Veins only implicated. Wound absent, as a rule.	In either case the result of obstruction produced by	1. Pressure. 2. Phlebitis (virus disease), lymphatics involved in phlegmasia dolens. 3. Thrombus, the result of introduction of foreign fluid. 4. Inflammatory action and thrombus conjoined. 5. Preternatural coagulability of the fibrine of the blood, a cause of venous coagulation, not of phlegmasia dolens.
Phlegmasia dolens.	Veins and lymphatics implicated. Wound present, almost invariably, except where pressure is the cause.		

In regard to phlegmasia dolens more particularly, I may sum up thus:

Prop. I.—In phlegmasia dolens both veins and lymphatics are obstructed.

Prop. II.—The obstruction may be due simply to extrinsic pressure.

Prop. III.—Or to inflammatory changes in the coats of the vessels leading to coagulation (this depends upon virus

action). Except during epidemics of puerperal fever, this is not so common as supposed.

Prop. IV.—It is pretty well admitted that rapid ingress of abnormal fluid suddenly, and in large amount, will cause instantaneous coagulation of the blood; and it is also admitted that large drains from the system are followed by rapid and compensatory absorption. There is good reason for believing that these conditions are fulfilled, in a perfect and ample degree, in conjunction with the presence of wound—facilitating absorption—in a great many cases, prior to the occurrence of phlegmasia dolens, and that the latter is frequently thus evolved.

Prop. V.—These different modes of evolution may be more or less conjoined.

Virchow has handled the subject of thrombus, like all else from him, most elaborately, but as yet no one has apparently elicited its true ætiology. I hope to have added my mite towards this point. I feel I do not deserve severe criticism on minute points here, for limited time and space have only allowed me to take a glance at the matter, but I have wished to place it before the Society in order that, if thought worthy of notice, I might bring forward more fully any additional observations I have to offer.

THE

PATHOLOGICAL LESION

OF

PHLEGMASIA DOLENS.

BY

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Read October 3d, 1860.

In a paper which the Society did me the honour to listen to on the 6th of June, I attempted to show that phlegmasia dolens consisted essentially of an obstruction to the lymphatic and venous circulations, produced, so far as the vessels were concerned, by extrinsic or intrinsic causes; that the extrinsic causes comprised all cases of pressure by tumour, and the like; the intrinsic all produced coagulation, and might be subdivided into the heads of—

1. True inflammatory changes in the vessels, as seen in the epidemic form of the disease.

2. Simple thrombus, produced by rapid absorption of morbid fluid as the result of sudden loss; the diseases in which it occurred, viz., the ulcerative stage and kind, being especially favorable for such to happen.

3. Virus action and thrombus conjoined, the phlegmasia dolens itself being the result of simple thrombus, and not produced by diseased (inflamed) coats of vessels; the general symptoms the result of the general blood state; the virus present.

I also attempted to show that preternatural coagulability of the fibrine of the blood would not, by any means, account for the disease, since the latter occurs in cases where there is positively a decrease in the amount of the fibrine of the

blood, and this remark is applicable to many cases of œdema.

In the course of the discussion which followed, one of the speakers remarked that he thought I had missed one essential point, viz., the condition of the exudation, as he called it, into the limb. I was purposely brief upon this point, inasmuch as I wished to avoid an imperfect notice of the recent important pathological views of Virchow which are involved. But I would now beg to be allowed to lay before the Society, for discussion, what appear to me the right conclusions as to the condition of the limb in phlegmasia dolens; for in regard more especially to the production of local changes of tissue, Virchow's views appear to clash with sound teaching. It will not be wasting the time of the Society if I take into consideration two questions, the correct appreciation of the interpretation of which gives us the basis of a sound method of therapeutics. They are—

1. What is the essential condition of the limb (the pathological lesion) of phlegmasia dolens?

2. How is it brought about?

First, then, what is the essential pathology (of the limb) in phlegmasia dolens? The word *essential* is important here, because there are so many changes of tissue which complicate, which are not peculiar to the affection, but common to many other diseases (*e. g.* what may be called pyæmic conditions), and which must be eliminated, when there then remains only so much as is proper and peculiar to, and constitutes the pathological lesion of, phlegmasia dolens.

Authors generally shirk over the matter altogether, with a passing remark or two about "the cellular tissue being distended with serosity," but all are agreed that it is the fibro-cellular that is affected, and it must be remembered that not only is the deep, but the most superficial, part implicated—the cutis vera, and even the epithelial layer. It is in consequence of these latter being affected that the colour of the limb is so peculiarly white, that transudation is checked, and that the peculiar acute neuralgia at the outset, and the numbness occurring presently, is explicable by

the existence of fibrinous material pressing upon or interfering with the fine nervous plexuses; and until these parts recover themselves, especially, of course, in chronic cases, we have remaining the thickened feel of the skin and subcutaneous cellular tissue, and the subjective, wooden feel of the leg, as it has been appropriately termed (Churchill).

I think the most practical way of dealing with the matter will be to look upon the condition of the limb as œdema plus something else, and it is this something else that we have to do with. In œdema we have effusion of serosity, possessed of little, generally no, coagulable power, free in the interstices of the cellular tissue, whose areolæ are more than usually distinct and distended; besides which the tissue itself is charged, by imbibition, with the same serosity. Now, though the veins are obliterated, there is a channel for the removal of waste, viz., the lymphatics. In phlegmasia dolens the blocking up of this channel is added to the other conditions of œdema, and this seems to be the difference between the two states; hence we must ascribe the conditions superadded to œdema, which make up phlegmasia dolens, to lymphatic obstruction. This seems to be the only inference we can possibly draw in harmony with facts.

You puncture the limb in phlegmasia dolens; very little oozes out. Under no circumstances can you diminish the size of the limb, as in œdema; the serosity is different, it has gelatinized; on examining the limb we find the cellular tissue more distinct, as it were; its areolæ not merely distended, but thickened in their walls, indeed, hypertrophied, and always in the interstices the lymph gelatinizing. In the majority of cases you get nothing more than this condition. Certainly there is a state more serious and more complicated, where puriform fluid is present, either in the condition of softened fibrine or true pus, or sloughing and gangrene of the cellular tissue and skin; but I would here most strongly insist that these latter are not at all necessary parts of phlegmasia dolens. They are met with in conjunction with virus disease (puerperal fever, and the like), complicated by phlegmasia dolens; they are not related to

the latter, but to the virus disease, and they are in nowise necessary, essential, or peculiar to phlegmasia dolens, but eliminative actions common alike to every variety of septic disease, efforts of nature working a cure, and erroneously misnamed "disease."

Take a case of inflammation of the lymphatics in an early stage, before pus-formation occurs; we get brawny hardness, the result of so-called effusion into the cellular tissue of gelatinizing serosity; the disease, however, does not stop here, but a virus has to be eliminated frequently by means beyond the ordinary ones, and abscess forms for that purpose. The contrast to this is where lymphatic obstruction results from pressure, and uncomplicated phlegmasia dolens follows.

It has been suggested that the elasticity of the limb is due to inordinate distension by serosity, which also prevents pitting, but this is a lame explanation where the veins are free and the swelling elastic. The difference in the condition of the limb is one, not of degree but of kind, evidently.

Then, again, another character in which it differs from the œdematous limb, and explicable by the fact that the lymphatics are obstructed, is the commencement of the swelling above and its extension downward, in many cases. This is hardly true, however; I should say rather that the swelling is to a certain extent general, but it is very unequal and excessive, indeed appears to commence equally common at either of two spots—the ham and the groin, as frequently at one place as the other, and from these points the swelling proceeds equally in all directions. It appears to me that we must expect (on account of the largest quantity of lymphatics and fibro-cellular tissues) that these places would be first affected.

Before I pass to the next query, let me repeat that the presence of fibrous serosity in, with more or less hypertrophy of, the fibro-cellular tissue, is the essential, the sufficient pathological lesion of phlegmasia dolens; the abscess, the sloughing, &c., are not peculiar to the disease, but common to many affections, and the result of an eliminative act to

rid the system of some blood poison; it is true that the latter may produce lymphatic and venous obstruction, and hence white leg, but it goes beyond this, giving rise to a distinct disease, *e. g.*, abscess, pyæmia, and the like. Phlegmasia dolens is, then, a local complication of the general disease, and the general symptoms are not part of the phlegmasia dolens.

My second question is—How is the state of limb brought about?

I must first of all say a word concerning the relative share played by the tissues and vessels. It is perfectly clear that changes of tissue, except those immediately depending upon local injury, must be secondary to changes of some kind in the blood-current. It cannot be admitted, as was stated by one of the speakers at the June meeting, that a tissue can of itself absorb and produce change without the intervention of the vascular system, in the face of the well-known experiments of Majendie and others in reference to the fundamental physiological truth, that circulation is necessary to the occurrence of absorption. M. Bernard pointedly referred to this truth in his late experimental physiological lectures (*vide* 'Medical Times and Gazette,' June 9th, 1860). It seems to me to be a sort of spontaneous-generation business (making the blood-vessels useless), although there is an increase of bulk. Physiology and pathology tell us that the blood brings material to the tissues, which latter direct and determine the subsequent changes it undergoes. Neither of these agents can we ignore. Mr. Paget's accepted views are based upon this compound act in nutrition and inflammation, the blood change being primary, the local (tissue) alteration secondary.

To come home to the cellular tissue, however.

(*a*) It may be damaged locally, and need repair and removal wholly or in part; hence we get increased activity, the answer to demand, the effusion for repair, and there the matter ends. The type of this call it, if you like, adhesive inflammation.

(*b*) But a poison may be absorbed locally through the

damaged spot or through some other channel, *e. g.* the lungs, and a change result in the cellular tissue in consequence, *e. g.* erysipelas, urticaria, &c.; but surely the vessels play an important part here. The ordinary excretory powers may suffice to rid the system of the poison, and here the matter ends, with an increased activity of reparative power. The type of this call it, if you like, resolution.

(*c*) Nature, however, may be unable to get on so comfortably, and then the abscess and its attendants are called to aid. The type of this is suppuration, which in a more advanced stage is pyæmia.

(*d*) We have a class, less severe, and of a different type to any of these, well seen in phlegmasia dolens. Local changes of tissue may result from increased supply, either—(*a*) positive, *i. e.* direct, or (*b*) indirect, *i. e.* from the excess of pabulum not being removed. No inflammation, so called, occurs. It is in this latter category that I would place all cases of phlegmasia dolens the result of extrinsic causes, *i. e.* pressure from tumours, &c., and cases of simple thrombus.

But whenever we have an intrinsic cause, or, rather, something to be got rid of, we have what are called the inflammatory actions—the increased general activity, the augmented nutrition, and, as a consequence, increased oxidation, increase of fibrine, increased heat, waste (formative power, for example), the augmentation in the amount of pale corpuscles, increase of the reparative act (*e. g.* effusions); subsequently, especially if the nutritive supply is not kept up, a relative diminution of all these, which together constitute inflammation, a most beautiful eliminative process, which, in the least active stage (resolution and adhesive inflammation), takes place by means of the ordinary excretory channels; but in a more advanced phase, where the poison is too much to be managed in this way, another effort is made, viz., suppuration, which removes dead tissue, virus, disintegrated, effete, effused products, &c.

If the virus be in great amount, the formative capacity (the vital force, as Dr. Inman would call it) is destroyed or

diminished; the disease is called diffuse; there is no limiting fibrine; the vitality, not only of effused products (evident in the formation of a plastic or corpuscular lymph), but also that of the blood itself (as seen in its want of coagulation), is lowered.

But do any cases of phlegmasia dolens appear to fall into this latter, the eliminative, category, so to speak? Yes, whenever a poison is present to be got rid of. What I mean is, that there are two types of the disease:

1. In which an eliminative process, inflammation, abscess, &c., takes place, these being the answer acts of the tissues to the blood state; it is the epidemic form; there is an effect produced by the virus, superadded to what occurs in the—

2. Other class of case. Where the blood state does not require an eliminative action on the part of the tissues, but where simple lymphatic and venous obstruction exists, *e. g.* pressure from without, or simple thrombus. This is the essential, simple, ample disease; it is the disease *sui generis*, and, as I have elsewhere shown, produced more especially by annihilation of some function in the lymphatics. "A poison being imbibed into the circulation from a wound or ulcer may produce phlegmasia dolens," by giving rise to venous and lymphatic obstruction, and, more than this, to an eliminative process of abscess and the like, but these latter are in no wise essential (peculiar to), but superadded, parts of the disease.

Here, then, is my answer to the question, how far are the tissues of limb concerned in phlegmasia dolens specially, as taking upon themselves an active part differing from ordinary nutrition (more than hypertrophy, I mean)? Only in so far as there is anything special to be removed, this latter action is alike common to all forms of virus disease; in other words, if I am asked what is essentially phlegmasia dolens, I answer, an hypertrophy of, plus fibrinous serosity in, the cellular tissue; the effects of the presence of a virus, *i. e.* abscess, pyæmia, &c., are not peculiar to it, but common to many diseases. You may just as well ascribe them

to cancer and phthisis. I deny altogether that any "exudation," in the strict sense of the word, occurs as a necessary part of phlegmasia dolens.

I must apologise for recapitulating thus freely, but I wished to avoid misunderstanding, which so frequently happens in the reading of a paper cursorily before a society.

So much for the state of the limb and the part played by the tissues and vessels respectively. We may now narrow down our question to this: how can obliteration of the lymphatic current induce the tense, non-œdematous elastic swelling? Since my last communication I have noted, in the discussion which followed the reading of Dr. Davis's paper at the Royal Medical and Chirurgical Society, May 20th, 1823, that Dr. James Johnston said that Mr. Abernethy had related cases where the disease (phlegmasia dolens) depended upon inflammation of the lymphatics, the veins being healthy; this is an important proof of the truth of my statements. To proceed, however. The lymphatics possess clearly three distinct functions:

1. The removal of waste.
2. An absorptive nutritive power.
3. A formative action (in their glandular part).

A fourth I shall endeavour to prove exists.

1. That they are active agents in the removal of waste is evident from the fact that absorption of solids is carried on rapidly where veins are obliterated, and also from the analyses of M. Wurtz, noticed in a recent number of the 'Edinburgh Monthly Journal,' showing that the proportion of urea is probably even greater in the lymphatics than the veins. The contents of the former are all poured into the venous current at the junction of the subclavian and jugular veins; and it is not improbable, indeed certain, that in favorable states of blood, *e.g.* anæmia, advanced phthisis, &c., where there is absorption of effete tissue or plastic material by the lymphatics, and this is poured into the circulation, kept going with a feeble, flabby heart, that it may be the cause of coagulation at the subclavian and innominate veins, at the point of entrance of the lymphatic duct, and (arguing from

the relation which the fibrine and corpuscles bear to each other in the clots) also probably in the right heart itself. Dr. Humphry has shown that thrombus may occur in simple anæmia where gravitation has come into play, *e.g.* in a case in which the arm was hanging out of bed, and the heart acting feebly (*vide* his pamphlet). But that I now point out is a method in which not only may thrombus be produced, but in which the general blood-current may be charged with effete matter, and rendered apt for thrombus, *e.g.* in the removal of waste in traumatism of all kinds, suppurating and ulcerating wounds, and diseases of bones especially. It must not be forgotten that thrombus in the vicinity of the right side of the heart and great veins tends to occur just as resolution is taking place, that is, coincident with the removal of local exudations. This is no fanciful theory, for in any case where absorption is specially active, *e.g.* phthisis, dysentery, &c., examine the lymphatics post mortem, and you will trace them filled with coagula, as was pointed out years ago, in reference to tuberculous cavities, by M. Guillot.

I will support my position by the narration of a case recorded by Dr. J. Worms, in the 'Gaz. Hebd. de Méd. et Chir.,' May 6th, 1859, called inflammation of the thoracic duct. It occurred in the Military Hospital of Gros, Caillon.

A man, æt. 40, was aroused one night by acute pain deep in the abdomen, radiating to both sides; it subsided in a day or two, and pyrexia came on.

Fourth day.—Acute pain in forearm, which became red and swollen; so did the calves and the thighs of the legs.

Tenth day.—Icteric; pulse full, hard, 60; abdomen tympanitic, but not painful; hardness felt in the subclavian vein (left); left arm swollen and painful.

Eleventh day.—Sinking.

Fifteenth day.—Death.

Post mortem.—Discoloured fibrinous exudation in the tissues of the arm; the glands swollen; left subclavian vein was blocked up, obliterated, and adherent to the parts around.

In the cæcum and ascending colon were deep ulcerations of the isolated follicles; the entrance of the thoracic duct into the subclavian vein was blocked up, and surrounded by an indurated mass; the duct was filled with a large quantity of "pus" (?), and its receptaculum chyli adherent to contiguous parts.

The diagnosis made was phlebitis of subclavian vein, extending to the thoracic duct.

I beg to differ, for several reasons.

1. Because the symptoms manifestly pointed primarily to the abdomen.

2. Because of the existence of ulcerated intestines.

3. Because the changes were most advanced in the thoracic duct, "the coats of which were thickened, opaque; the internal coat softened, denuded of its epithelium, and presenting small, ecchymosed patches."

Nothing was said about the veins of the lower extremities or the vena cava inferior; however, the pulse was never above 80; the attack was sudden; there were no evidences of phlebitis; only one arm, the left, was attacked; there were no general symptoms; the obstruction occurred where stagnation was most decided (at entrance of thoracic duct into the subclavian); these and many other details prove indubitably that the case is a most typical one of thrombus, produced by the absorption from ulcerated surfaces of the lymphatics and at the entrance of the thoracic duct into the subclavian.

In any future research this influence of the lymphatics should be borne in mind, as it bears upon the disintegrating uterus after parturition, the case of surgical or pathological traumatism (by the latter I mean ulceration of all kind), and also the resorption of effused plastic products; for I doubt not that cases of coagulation in the great veins near the heart, and in the right side of the heart itself (ante mortem of course), in which sudden death occurs, which cannot be accounted for by the detachment of clots from other parts of the venous system, may be produced in favorable states of the system in the manner under notice.

(*a*) The next function of the lymphatics is an absorptive, nutritive one, and is seen in their analogy to chyliferous vessels, and in such experiments as those of Schreger, with milk.

(*b*) That they possess a formative power is clear from the changes which ensue in the lymph in progress through the glands to the blood-current.

In obstruction of the lymphatics, which is our point, these functions above noted cannot come into play, so as to produce the change in the limb; hence we must seek some other property.

(*c*) It may be inferred that the amount of lymphatic distribution and cellular tissue are in direct ratio, and that there is some special function to be performed by the former in regard to the latter. It is clear, too, that changes of tissue essential to phlegmasia dolens are due to some abnormal condition of the fibrinous element of the blood; hence we may put our question for solution into another shape. Thus, what are the changes which the element lymph undergoes in phlegmasia dolens, and how does obstruction of the lymphatics produce it?

Authorities upon this point—Virchow, Zimmerman, Simon, Cappie—tell us that fibrine is the result of change in the areolar tissue, and that fibrine is brought to the blood by the lymphatics. Dr. Bond, in a paper reported in the 'British Medical Journal,' May 5th, 1860, has stated certain objections to this view, and they appear very forcible ones. The chief one is, that we get an increase in the amount of fibrine where there is no local inflammation, *e. g.* in an early stage of acute rheumatism. Another objection he advances is the mode of production of exudation in the web of the frog's foot, its being independent of the lymphatic act.

There are other arguments which are far more decided in the matter, and tell against Virchow's doctrine, that fibrine is excrementitious, and derived from conversion of the cellular tissue:

1. Its use in the economy, exemplified in all cases of

breach of surface, in coagulations, &c., and its capability of organization when effused.

2. Its artificial mode of production—by the oxidation of albumen, as shown by the experiments of Dr. Gairdner. Hyperinosis would appear to be directly proportionate to the amount of oxidation.

3. Its chemical composition and affinities, being dissimilar to waste products, such as urea.

4. Its being the result of an elaborative act, produced from albumen, during its passage through the glands; and let me add, if fibrine be excrementitious, its ally, albumen, must be so too. Dr. T. Williams has observed in the articulate series, the oval, granular, nucleated blood-cell burst, and the contents, when discharged, fibrillate. This fact appears to me inexplicable on Virchow's theory.

5. The relation which obtains between fibrin and the pale corpuscles. Not only is increase and decrease in direct ratio, but, whether in disease or as a normal process, the same formative power influences both similarly. As a normal process, we note an increase *pari passu* in the chyliferous vessels; as a diseased condition, inflammatory changes.

In the larvæ, increase in amount of the oat-shaped corpuscles (granule-cells) and fibrin occurs together at the time the change of skin takes place. There are other nucleated cells present in the imago state, but the granule-cells (the true pale corpuscles?) are diminished in number. In the animal series, if time allowed, I might trace out the same relation—first, the cells appearing, then the fibrine, the two keeping a constant ratio.

6. Of all arguments, its analogy to connective tissue is the strongest, perhaps. Liebig has distinctly shown that the old doctrine, that fibrine nourished the fleshy parts of the body, is incorrect, and that its chemical relations ally it (as its vital properties do) to the pabulum of the fibro-cellular tissue and gelatine. It is impossible to conceive that a special pabulum for the connective tissue should be formed by a "conversion" of itself. Mr. Newport's very interesting observations, recorded in the 'Philosophical

Magazine' for 1845, link together the facts contained in the last two arguments. In the pupa state the corpuscles and plastic elements decrease, but in the perfect insect, when the wings are to be formed, a great increase takes place in the oat-shaped corpuscles, and in the fibrine, and the corpuscles are seen circulating in the vessels of the forming part; but when the wings are completed, these oat-shaped corpuscles disappear. We have a fact here which testifies clearly to the close connexion between the plastic material (fibrine), the corpuscles, and the cellular tissue. There are other corpuscles in insects which do not undergo any such alteration; these probably represent true red corpuscles.

7. The *reductio ad absurdam* occurs in the digestive act itself. In the splenic, mesenteric, and portal systems, we see a great quantity of not very tenacious fibrine and corpuscles produced after each meal in largest amount; indeed, in the digestive act we get the very condition (the ill-developed fibrine, or fibrogen—then the true fibrine) which Virchow would have us believe is the result of a change in the cellular tissue. M. Simon has urged some other minor points in favour of his doctrine, which I must not stay to consider, though they are explicable on true physiological grounds.

For all the reasons stated, it must be admitted that fibrine is the result of an elaborative act, and one, certainly, as regards causation, quite independent of the fibro-cellular tissue, but prepared expressly as its pabulum. If we watch the circulating current in the frog's foot we find the outside stream flows more slowly than the rest; this layer is of greater density than the centre current, and in it the pale corpuscles mostly keep, often "sticking" to the vessel-wall. There must be some object in view here; the only one borne out by the preceding considerations is that the pale corpuscles and the dense layer have some special relation to the fibro-cellular tissue outside; this, taken together with the intimate relation subsisting between the corpuscles and the fibrine, give the further inference that the pale cor-

puscles are the agents which bring about the necessary changes, fitting the fibrine for the nourishment of the cellular tissue, just as there is ample reason to believe that the red corpuscles perform a like function in relation to the muscular and nervous tissues. In disease of the fibro-cellular tissue, *e. g.* pneumonia, pleurisy, we have a type of concomitant increase of corpuscles and fibrine. Very well, we have one more inference, and we obtain the answer I am aiming at.

Venous obstruction will not produce phlegmasia dolens, but lymphatic obstruction is followed by the retention of fibrinous serosity in the cellular tissue; hence clearly, from what has preceded, one office of the lymphatics must be to remove all superfluous nutritive material, to economise and keep the balance of nutrition correct, hypertrophy of, and retention of fibrin in, the cellular tissue ensuing upon their obstruction. It necessarily follows, too, that hyperinosis, congestion, &c., are favorable to the development of this local state, inasmuch as the pabulum will be in excess. That this view of the action played by the lymphatics is correct seems confirmed by their behaviour in cases of phlegmasia dolens occurring in cancer and phthisis, where no superadded, complicating, eliminative action takes place, and by the behaviour of these vessels in removing exudations of all kinds, showing their special relation, again, to the cellular tissue.

In inflammation, generally, I doubt not the ignoring or rather overlooking the influence of the lymphatics is one of the stumbling-blocks in the way of correctly appreciating many parts of this process. They frequently become involved, and their obstruction must account for much of the brawny, plastic swelling, and the failure of resolution. It has struck me as a very tangible objection to Virchow's doctrine, if the lymphatics be agents in carrying fibrine to the general blood-current, that hyperinosis is produced in cases where the lymphatics are obstructed; and, again, virus disease, in its severest forms, is accompanied by rapid change in a large

tract of cellular tissue, and yet here a diminution in the amount of fibrine in the blood is observable. The foregoing remarks would be useless unless they afforded some practical lesson as to treatment.

We have to deal with two distinct types of disease:

A. The passive, uncomplicated form, comprising two classes.

(1) Cases due to mechanical obstruction, *e. g.* pressure from tumours, &c. The treatment here is one of superficial removal.

(2) Cases of simple thrombus.

B. The acute febrile, mostly met with as an epidemic disease, *e. g.* in the course of puerperal fever; it is in these instances that phlebitis is found, if found at all. We may subdivide this class into—

1. Cases due to the action of a blood poison upon the coats of the vessels; *e. g.*, in puerperal fever, erysipelas.

2. Cases in which the obstruction giving rise to phlegmasia dolens is thrombus, but superadded to this are general febrile symptoms, due to virus action.

In these two latter categories eliminative actions are common in the limb, *e. g.* abscess.

In my former communication the distinctive characters of these two types, A and B, were sketched.

Seeing that absorptive influence plays so great a part in the evolution of the disease, and that inflammatory changes in the coats of the vessels are so uncommon, by all means depletory means of all kinds should be used with extreme care and caution, after labour, in weakly subjects; the general circulation should not be allowed to flag.

That blood state which is apt for coagulation should be regarded of primary importance, and attention should be directed to it more than has been the custom; at the same time our calomel-bottle, and the like, should be labelled "poisonous" in absorptive and inflammatory doses (*i. e.* continued). In all cases of traumatism, especially where the patient is anæmic, the occurrence of profuse discharge of

any kind should be carefully guarded against, and wounds must be kept scrupulously clean. Such is the pith of the prophylaxis.

In regard to the actual disease, if it be the epidemic form, the object is to keep the ordinary eliminative channels free, and to support nature by tonics—bark and quinine, iron, as the case may be; where the pulse flags, or the heat of the body is diminished, by free stimulation. If the case be markedly sthenic, active antiphlogistic measures may be adopted at the outset, but only at the outset, remembering that excessive action is succeeded by excessive waste and expenditure of force, which must be repaid by corresponding sustenance, as material for repair.

As regards the local state, abscess is the eliminating agent, and the object must be to obtain a good amount of "limiting fibrine," which can only be brought about in the severest cases by literally cramming the patient with nourishment by the mouth and by the rectum, and inasmuch as the phlegmasia dolens is a conservative action in these cases, preventing admixture with the blood of noxious matter, it is not desirable to re-establish the current until local elimination has done its work, and until we have, by suitable general means, brought the blood into a condition less likely to coagulate; then, when the limb is in progress of subsidence, the exhibition of ammonia to help the solution of plastic material, in conjunction with local frictions with stimulating liniments, &c., will be of especial benefit.

In cases of simple thrombus the same line of remark applies as to the general condition; anæmia, and the like, must be corrected by quinine, bark, and iron especially, which corrects the deficiency of red corpuscles. Nourishment in good amount will equalise the irritability of the system; the excretory channels must be kept free. The local disease is conservative, and when the blood has been improved and the limb is subsiding, the exhibition of ammonia, as recommended by Drs. Humphry and Richardson, is peculiarly good, in conjunction with local stimulation and bandaging.

In cases of simple thrombus, in conjunction with virus action, no line can be intimated to suit all cases, but judgment must select appropriate remedies, dictated by the analogy of cases comprised in the other groups.

To two practical rules I would particularly draw attention.

1. That a certain time must always elapse ere the obstruction be removed (if removed at all), and it is not sound practice to use any endeavour to reduce the limb speedily to its natural size, until the blood state has been improved; then it is not only proper, but most desirable.

It follows, secondly, that the practice of giving ammonia, in all cases, to overcome the thrombus, is based upon unsound doctrine, and is empirical. It is attempting to overcome nature's own conservative process. The ammonia will not bring back the blood to its healthy condition. Especially is this applicable to the epidemic form. Why, the virus has done the very thing the ammonia is exhibited to accomplish. In this case there is the very reverse of hyperinosis; more fibrine, in reality, is wanted; there is a large amount of nitrogenized waste matter in the blood-current. The virus has liquefied the blood, so to speak; hence, in the epidemic form, I would rather, at the outset, avoid the use of ammonia, and, in lieu of it, rely upon the free use of stimulants—wine, brandy, if necessary. Used rightly, the ammonia is a most valuable adjunct; the blood state having been improved, by all means let the exhibition of ammonia help to diminish the local condition, remembering that the action of the drug is very transient, and it must be frequently repeated. Mr. Lister's observations tend to show that this agent is not the real solvent of the fibrin of the blood. ('Edinburgh Monthly Journal,' No. 54, p. 536, 1859.)

Such appear to me to be the main indications of treatment, which I should much like to enlarge upon; but I have wished this paper to be brief, since the views sketched herein are of great pathological moment, and deserve full discussion. In conclusion, then, let me repeat—(1) that obstruction to the lymphatics obliterates one of their functions (complementary in relation to the nutrition of the cellular tissue);

the excess of pabulum not being removed, hypertrophy ensues, with retention in the interstices of fibrinous material, all of which are favoured by hyperinosis, hyperæmia, &c. (2) That this is the ample disease, phlegmasia dolens. (3) That a virus may produce obstruction to the venous and lymphatic currents, and thus phlegmasia dolens; but in this case eliminative and special reparative actions ensue, which are superadded conditions, not peculiar to, not essentially a part of, phlegmasia dolens, but specially related to the blood disease in which phlegmasia dolens occurs.

ENORMOUS FIBROUS TUMOUR

CONNECTED WITH

THE UTERUS.

(IN THE PRACTICE OF DR. R. UVEDALE WEST, VICE-PRESIDENT OF THE OBSTETRICAL SOCIETY.)

BY

GRAILY HEWITT, M.D., M.R.C.P.,

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Read June 6th, 1860.

THE patient, æt. 53, died on May 23d, 1860, from an attack of uterine hæmorrhage. The following is Dr. West's history of the case:

"She had been married thirty-three years. After marriage had three children as quick as she could, her youngest being now twenty-nine years old. Menstruated with some irregularity, chiefly as regards quantity, which was generally profuse during the last few years (or since her abdomen began to swell), to the great relief every time of her uncomfortable feelings from the enlargement. Menstruation ceased exactly a year ago. She frequently, during the last six or seven years, suffered from stomach derangement. Ten days since, had a formidable attack of uterine hæmorrhage, which came on while washing the floor on her knees; this was arrested by rest and gallic acid, and until May 22d, when a smart return of the bleeding, in the afternoon, exhausted her so that she died the following afternoon.

"During the last ten years I had frequently seen her, and had diagnosed a solid tumour, bearing some relation to the uterine system, the latter supposition being suggested by the circumstance of the relief afforded by menstruation."

The tumour, forwarded to me by Dr. West, and exhibited to the Fellows, was stated by him to have been adherent firmly to the abdominal parietes anteriorly; it weighed forty-two pounds; its diameter is about sixteen inches, and its circumference is forty-four inches.

The uterus, which, with a small part of the upper extremity of the vagina, is left attached to the lower part of the tumour, measures two inches vertically. The Fallopian tubes have been cut across about an inch and a half from the uterus, and their fimbriated extremities, together with the ovaries, have apparently been left in the pelvis, for they are not to be found in the tumour. What is perceivable of the vagina agrees with what Dr. West states, that he could not reach the os uteri; the finger could not reach the os. The presence of bands passing across and constricting the canal half an inch below the os uteri accounts for this fact. The canal above this constriction itself is very narrow. Close to the part of the tumour to which the uterus is attached two or three vessels, measuring one third of an inch in diameter, pass into it, but no rupture of either of these vessels is apparent; indeed, owing to the altered state of the parts, it would be difficult to recognise it if it were present.

The substance of the tumour is hard and resistant; it possesses a fibrous texture, septa running in various directions. The surface of the tumour has been apparently moulded to the shape of the abdominal walls. The section is white, firm, and shows large vessels. By the forceps the tissue can be teased out so as to show the fibrous texture. There is no evidence of softening at any part; the structure is everywhere uniform in composition.

The connexion of the tumour with the uterus was very slight; it apparently proceeded from the anterior or the posterior (which, it is difficult to say) portion of the cervical part of the uterus. Firm, fibrous bands pass off from this part of the uterus to the tumour, but the main part of the connecting substance is composed of cellular tissue and large vessels. The connexion between the uterus and the tumour does not measure more than three quarters of an inch in thickness.

CASE

OF

HYDATIDIFORM DEGENERATION OF THE OVUM.

BY

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Read June 6th, 1860.

Mrs. B—, æt. 35, residing at Pembridge Mews, Notting Hill, became a patient of mine at the Samaritan Free Hospital.

She had been married six years; of a bilious temperament. Had had two children. Had lived in her present place of abode one year, which was a dry and open locality. Her father died of icterus and cardiac disease, aged fifty-nine. Her mother was alive; aged seventy. Neither she nor any of her female relations had been affected with any similar uterine complaint to that of my patient.

Catamenia began at fifteen; regular every four weeks; duration of epoch, from four to five days. She has been, to say generally speaking, a strong, healthy person, having only had the usual diseases of children; never sickly or weak at any time of her life. She was by occupation a laundress. Latterly, however, except occasionally, and when compelled to work (owing to her husband being out of employment), had usually only attended to her domestic duties.

Present illness.—About two years ago, when suckling her second child, she began to suffer from uneasy sensations about the vulva. She describes them "as similar to a

bubbling of water through the external parts, crackling just as soap-bubbles would." The noise was audible to bystanders, but there was no escape of fluid with the flatus.

About the 13th or 14th of July last (1859), she weaned her little girl. She was taken unwell the day before she began to wean it, and the catamenia continued up to the 21st of July. From that period it did not again recur till two months and a fortnight after, so that she believed herself pregnant. At the end of this period, however, the catamenia reappeared, about two or three clots, of the size of a walnut, coming away. There was no escape of water with them, the appearance, excepting the clots above referred to, being "coloured" just as when a woman is ordinarily unwell. It lasted upon her for a fortnight. Then it abated for three or four days, then again recurred for three or four more, and so on, up to the period of her consulting me. From the time of the recurrence of the catamenia connexion gave her pain, and always caused the coloured flow to reappear. She also began to feel an uneasy sensation of weight in and about the womb, as if there was something which wanted to come away. She also often felt sick and languid and faint. The breasts felt sometimes very much larger than at other times, but there was no escape of milk, nor indeed any *dampness* about her chemise where it came into contact with the nipples. No escape of colourless water per vaginam, alternating with the bloody discharge, was observed throughout all her illness.

She first consulted me on March the 22d, 1860. I did not make a vaginal examination at first. The symptoms were those of menorrhagia with those of slight procidentia uteri. She was ordered Argenti Oxidi gr. viij, Ext. Cannabis Indicæ, gr. ½, in pill, three times a day, and the compound jalap powder twice a week, in the morning. She got better, at least as regards the quantity of discharge. On the 1st of May, however, as the menorrhagia, albeit less copious, persisted, and wishing to satisfy myself as to the probable coexistence of some abnormal

uterine condition, I proceeded to an examination:—Os soft, velvety, giving the suspicion of pregnancy; uterus large, heavy, containing something; pain produced on touching it, great; uterus scarcely projecting above pubis; no fœtal sounds or placental souffle to be heard; appearance of breasts doubtful; still the areola was very dark; os uteri patent, exuding a chocolate-coloured, not sanguineous, fluid, free however from all unpleasant odour. The sound was now carefully introduced, through the patent os, and removed the moment it came in contact with an internal body, which it did after penetrating about an inch. It was not followed by any increased escape of the chololate-coloured discharge or colourless fluid.

Diagnosis.—Most probably a blighted ovum. She was advised to become an inmate of the hospital, the nature of her affection being explained to her at her request. She appeared to be much upset at the idea of becoming an inmate of the hospital. This examination was made on the Tuesday afternoon. Ordered Ol. Tereb. ʒj, ter die.

She slept quietly all night, being much fatigued, however, by her walk to me and by some heavy washing which she had to do, and which, indeed, had kept her occupied the best part of the week, being, however, most distressed at the prospect of entering the hospital. On the Wednesday morning, directly after she got up, she began to feel great pain in the back, and in a moment about half a cupful of blood, and a small bladder, about the size of a fish-bladder, came away per vaginam. The pains continued. She afterwards went to look for a handkerchief, and in doing so stooped down rather much, when a tremendous gush of blood took place, followed not this time by bladders, but by a brownish-looking substance, a mass like a piece of old liver; there was, however, no offensive odour. The flooding continued from 10 till 4, when Dr. Clarke, of Adelaide Terrace, was called in. The pains at this time were very severe, like labour-pains, but more intense. The miscarriage was not over till half-past 9, when the placenta came away.

The following is Dr. Clarke's report:—It was on the afternoon of May 2d he was called to see her. He found her suffering from severe hæmorrhage, with regular uterine pains. On examination, the os was found large, about the size of that of a woman pregnant at the third or fourth month. On examining the clots carefully, to ascertain if a fœtus had escaped, he discovered in the centre of one of these a grape-like body. He accordingly diagnosed the case to be one of uterine hydatids. A large basinful of these was finally expelled, together with the uterine membranes. The only treatment adopted was application of cold cloths, and scruple-doses of secale cornutum every half hour, with a little cold brandy and water, as she felt faint. The recovery was good, all hæmorrhage ceasing after the expulsion of the membranes.

Examination of the expelled mass.—1st. A number of small, round bladders, loose, varying from the size of a pea to that of a large walnut, some caudated, exactly resembling the appearance of a large cysticercus, containing a pinkish fluid, transparent, within a pellucid membrane.

2d. A bag of membranes, in one portion much thickened, a portion of which is now on the table, to which, here and there, were attached, by small pedicles, several similar bladders, the membranes being white, the bladders of the same colour, size, and appearance, as the loose bodies before described.

3d. Two masses, like pieces of liver, which have been kept several days, of a light-chocolate colour, clearly clots deprived of colouring matter, and evidently formed a considerable time back.

The fluid contained within these bladders had an acid reaction. It was very slightly tinged with yellow, and strongly albuminous.

There was no evidence of cysticerci in these bladders. The membrane, when one of these bladders was burst, shrunk up, giving an appearance of parallel shreds, of a darker colour, irregularly placed in a circular manner around the bladder, upon a pellucid basement membrane, with here

and there a few oil-globules, part of this basement membrane being evidently tinged with blood. No trace of the ovum was found, though carefully looked for.

Remarks.—This case is clearly one of the so-miscalled affection, hydatids of the uterus—undue development of the villi of chorion after the death of the fœtus.

The examination placed the death of the fœtus (assuming a fœtus certainly to have been present) beyond all manner of doubt. A patent uterus, with a chocolate fluid exuding from it, and the previous history, could only proceed from dismemberment of the ovum, or some internal polypoid or fibrous mass. The soft, velvety feel of the uterus, and the suspension of the catamenia for two months in the early period, made it more probable to be a case of blighted pregnancy than a tumour.

It may be doubted how far the introduction of the sound contributed to hasten the miscarriage. The hard work to which she had been subjected before, her long walk to see me, and subsequent fretting at the thoughts of entering the hospital, might have all contributed to hasten the miscarriage; an explanation confirmed by the patent os uteri, itself discharging, when first examined by me, a chocolate-coloured fluid, not sanguineous, which may have been regarded as evidence of incipient miscarriage. The mere gentle passage of a sound could scarcely have otherwise induced it. In any case it is manifest the treatment indicated was to cause the expulsion of the dead ovum, and thus to stop the constant drain upon her strength. Had I admitted her as an in-patient in the hospital, I should have dilated the os by sponge-tents, so as to make out certainly the nature of the contained body, and to favour its removal or expulsion.

A DESCRIPTION

OF TWO

FŒTAL MONSTERS.

BY

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Read June 6th, 1860.

The first specimen which I beg to bring before the Fellows of the Obstetrical Society is a good example of a *double monster*. I am indebted for this obstetrical curiosity to my friend, Mr. Weekes, of High Street, Bloomsbury, in whose practice the case occurred. The mother was over thirty years of age, and was pregnant for the first time. When eight months advanced, labour-pains set in, and Mr. Weekes, finding that the right hip of one infant presented, proceeded to turn as soon as the os uteri was fully dilated. To this gentleman's astonishment, he detected the presence of four feet; and although doubtful of the nature of the case, he thought it better to bring down all the limbs. This accordingly was done, and the body of the monster safely delivered, but there was great difficulty with the two heads. At length the entire double fœtus was brought into the world, one head appearing to fit upon the neck and under the chin of the other. Both the children were dead. The mother has since progressed favorably, and is now well.

On examining the specimen it is seen to have two well-developed heads, four upper extremities, and four lower limbs. There is one large thorax and one abdomen, but the organs of generation, those of a female, are complete in each infant. The specimen could not be dissected until decom-

position had advanced rather far, but it was easily made out that there existed only one thoracic cavity, having two

lungs, and one heart, and one sternum. The abdominal cavity was likewise single, having one liver, one spleen, two kidneys, and one set of intestines. There was only one umbilical cord, and of course one placenta.

Three hypotheses have been put forward to explain the origin of these bodies. They are briefly summed up by Vrolik as follows:—1. The double monster is supposed to have proceeded from two distinct embryos, which have become united in the course of development. 2. It has been thought to originate in a single germ, which has become double, or has been subdivided. And 3. The germ has been regarded as abnormally compound from the beginning, implying that the organs and parts composing the

double monster are at once produced from this germ, without either separation or coalition of its parts other than belong to the natural process of development.

The probability seems to be that the second hypothesis is the correct one, viz., that only one germ has been formed, and that the monstrous duplicity has resulted from excess of formative power. Dr. Allan Thompson and others have demonstrated that upon one yolk, and in one germinal membrane, there may be formed, in birds, two primitive grooves, which in their further growth shall form a double monster, as is shown by Dr. Thompson in a drawing made from the egg of a goose after five days' incubation. The well-known fact that the common fowl sometimes produces double-yolked eggs, at one time led to the opinion that the formation of double monsters might be attributed to the development and subsequent union of the embryo in each yolk; but although such double-yolked eggs may give rise to twins, yet it does not seem probable that they will produce double monsters. At all events, in a dozen double-yolked eggs which Professor Allan Thompson brought to incubation, he did not succeed in obtaining one double monster.

In the second specimen exhibited there is *congenital umbilical hernia,* and for the opportunity of showing it I have to thank Mr. Jones, of Drury Lane. The patient who gave birth to it imagined herself to be about six months gone in pregnancy, though gestation must have advanced further. The labour was easy, but was preceded and accompanied by flooding. The fissure, though large, is seen to be limited to the epigastric region, above the umbilical cord. This is just the part of the abdomen which naturally remains the longest open; but in the present case an arrest of development had prevented the closure at that stage when a portion of the abdominal viscera is contained in the sheath of the umbilical cord. Below the umbilical region the integuments are in a healthy condition. The hernial sac has been formed of two coats; that is to say, externally by the

amnion and internally by the peritoneum. They have been ruptured, so that the contents of the hernia are seen to have been formed of the intestines and the liver, while at the upper part is the heart. The fœtus was dead when born.

FŒTUS RETAINED IN UTERO

FOR SOME

WEEKS AFTER ITS DEATH AND DECOMPOSITION.

BY

W. NEWMAN, M.D. Lond., Fulbeck, Grantham.

AND

G. HARLEY, M.D.

Read July 4th, 1860.

Mrs. F—, wife of a publican in country village, æt. 25; married four years. Is a thin, pale woman, with history of indifferent health for some years prior to marriage, but since that time has been stronger. Has always menstruated regularly since her marriage until the middle of November, 1859. She was last unwell about the 16th or 17th of that month. States that she believed herself pregnant very soon after that time; had morning sickness, with increase in size of breasts and abdomen, and other symptoms of pregnancy deemed conclusive by her friends and herself. Was seized while sitting still, and with no prior exertion to account for it, about the middle of March, 1860, with severe pain in the abdomen, lasting for some time, and accompanied by bearing down, feeling of weight in abdomen, &c. There was no hæmorrhage nor discharge of any kind. She states that within the next few days the heart became small and flaccid, and the abdomen (before large) did not increase, but rather diminished, in size; the morning sickness ceased altogether, and her general health failed much. She had pain repeatedly for the next few weeks, but no hæmorrhage whatever, and was able to look after her household work as usual.

On June 9th, 1860, she was rather roughly pushed across

the room by her brother, and within a few minutes had hæmorrhage come on in some quantity. Each day for the next eight days there was more or less sanguineous discharge, and pain of bearing-down character was almost constant, though rarely very severe.

17th.—About 1 p.m. had sharp pain come on all at once; regular uterine action followed. I was sent for, and arrived at 5·40 p.m. Found that at 5 p.m., while she was making water, some substance had been expelled, and still remained between the labia. This turned out to be the sac of membranes inclosing the trunk and lower extremities of a fœtus, the head, with the placenta, still remaining in utero; the os highly contracted round the neck of the child. The liquor amnii was expelled in extracting the head, dark in colour, opaque, thick, and fetid. It was only after some difficulty that I succeeded in extracting the head from the uterine cavity; the placenta followed with comparative ease.

Child eight to nine inches long, flaccid, and decomposed; eyes sunk, and apparently dead for some time; cord flaccid and decomposed; placenta fresh coloured, apparently healthy in texture, containing blood-clot in two or three places within its mass, extending to and lying on the maternal surface.

The mother had feverish symptoms for first few days, but now, June 23d, is only suffering from the effects of loss of blood.

I do not think that there is reason to doubt the truth of the woman's statement. The account I have above given was taken down at once, and corroborated by her mother.

The fœtus, then, it would seem, conceived in November, passed through four months of uterine life without any unusual occurrence, died in March from some non-evident cause, and, yet dead and decomposed, was retained in utero for three months more, its ultimate expulsion being determined, not by the uterus resenting the presence of a lifeless mass, but by the accidental separation of a portion of the placenta from the uterine wall, consequent hæmorrhage into the substance of the placenta appearing also externally, this

inducing uterine action and the subsequent extrusion of the contents of that viscus.

I have brought the case before the Fellows of the Obstetrical Society, believing it to possess points of interest both in an obstetrical and medico-legal point of view—

(*a*) From the long retention of the dead fœtus.

(*b*) The immediate cause and mode of its expulsion, exhibiting the relative value of the two symptoms of pain and hæmorrhage as influencing the occurrence of abortion.

After communicating the above case, Dr. Harley raised the following question :—"In cases where the fœtus is known to be dead—from the heart's becoming flaccid, the abdomen ceasing to enlarge, the presence of a fetid discharge from the uterus, &c.—and the health of the mother suffering, would not the practitioner be justified in inducing the expulsion of the dead fœtus by artificial means ?"

A CASE

OF

EXTRA-UTERINE PREGNANCY.

BY

CHARLES DRAGE, M.D.

Read July 4th, 1860.

I HAVE thought the following case worthy of being brought to the notice of the Obstetrical Society, because recovery under the like circumstances is by no means of frequent occurrence.

Mrs. C—, æt. 31, the mother of three children; the last born in October, 1849. She has never miscarried, and has generally had good health.

I was sent for January 26th, 1852; she considered herself three months pregnant, and expected to be confined in the June or July following.

She complained of violent spasmodic attacks of pain, principally in the region of the transverse colon, and of obstinate constipation. She vomited constantly. The catamenia appeared three times, at irregular intervals, between the time I first saw her and the end of the following March, when she again suffered a great deal of pain. At the end of June there was considerable hæmorrhage, which lasted, at intervals, until August 6th, when it ceased entirely. From this time the monthly periods became quite regular, and they continued so during the remainder of her illness.

In July, 1852, in consequence of the persistence of the hæmorrhage, I examined her, to ascertain whether she was or was not pregnant. Externally, the abdomen had all the appearance of pregnancy; the uterus could be felt through the abdominal walls; it was larger than in the unimpregnated

state. The placental *bruit* could be distinctly heard in the right iliac region, but I could not hear the fœtal heart, although I listened most carefully.

Examination per vaginam.—The cervix uteri was shortened, as at the eighth month, and the uterus gave me the idea of pregnancy most completely.

I told the patient's friends that I considered her pregnant, but as I could not hear the child's heart I could not be certain about it.

In the early part of her illness the violent pain was relieved by large doses of hydrochlorate of morphia, and the constipation was treated with saline aperients and very large enemata, with good effect. Five-grain doses of the tannate of alumina seemed to do more good in arresting the hæmorrhage than any other medicine.

July, 1852.—From this time the abdomen diminished in size very gradually, and by June, 1853, and not until then, it was nearly in its natural condition; there was always, however, a distinct tumour to be felt deep down in the pelvis, but as it caused the patient no pain or uneasiness, she did not like to have it inquired about.

She continued very well all the autumn and winter, and in January, 1854, she went on a visit to London. Whilst there, on one or two occasions she went to a dance.

February, 1854.—She returned home, but I did not see her again until the middle of March, when she told me that since her return she had been sick every morning, and that she had had an offensive discharge from the vagina for some weeks. Whilst in town she had felt very ill, and had consulted Dr. Addison, who sent her to Dr. Lever; the result of their consultation she did not know.

Examination per vaginam, March, 1854.—I found a small, oval opening, with rounded edges, in the posterior wall of the vagina, just admitting the point of the finger; an examination per rectum disclosed an opening in its anterior wall corresponding with the one in the vagina, and of much the same character. Through both apertures I could make out a mass lying between them, and feeling like

bone. I supposed this to be the remains of an extra-uterine fœtus, which had descended into the recto-vaginal pouch, and had remained there quietly until, from some cause (dancing?), irritation had been set up, leading to ulceration of the rectum and vagina.

April 19th, 1854.—I took her to see Mr. Hilton. Our views of the case agreed; it was settled that she should return into the country, and that, as soon as her health permitted, the mass should be removed. There was entire loss of appetite, constant vomiting, and great emaciation. She lived on sherry and pale ale.

27th.—She had somewhat improved in health. Having dilated the vaginal opening with my finger, I extracted, with a pair of lithotomy forceps, after a good deal of trouble, a quantity of bones, phalanges of fingers and toes, and the left temporal bone; these were entirely free from muscle, and appeared as if they had been boiled.

On various occasions, up to May 20th, I got out different bones, and on this day a large mass of putrid muscle and bones, apparently the spine and ribs, with the dorsal muscles still attached. I now possessed an almost perfect fœtal skeleton.

May 30th.—The sickness has ceased. To take the citrate of iron in an effervescing mixture.

June 8th.—Nothing to be felt. The finger passed freely either into the rectum or upwards into the sac. The openings had considerably contracted. I advised her wearing a small piece of sponge in the vagina, to prevent the passage of fæcal matter from the rectum.

12th.—The catamenia appeared as usual. She gains flesh rapidly.

August 15th.—She is well. The apertures in the vagina and rectum have greatly contracted since the examination in June.

June, 1860.—She is in perfect health, and much stouter than she ever was. There is no inconvenience from the openings, save when the bowels are much relaxed, and then only a very small quantity passes per vaginam.

ON SOME

OF THE

EXIGENCIES CONNECTED WITH PRETERNATURAL LABOUR.

BY

JOSEPH THOMAS MITCHELL, F.R.C.S.E.

Read July 4th, 1860.

In introducing this paper to the attention of the Society, I would take advantage of the occasion to express the great gratification which I feel in the fact that the Obstetrical Society of London is firmly and satisfactorily established; and that I am convinced it will soon stand second to no similar society intended to benefit the science of medicine in usefulness and in honour.

In the course of a protracted practice, I have had ample and often painful experience, proving the great want of such a Society in London, and now I hope that the name of every honorable practitioner in midwifery in England and Wales will very soon be enrolled in the list of its Fellows.

To show that a great lack of obstetrical knowledge prevails, and often leads to painful consequences, whilst intelligence in most other branches of medicine has so much and so generally increased, I will relate some of many cases that have fallen under my own observation. And I would state that, among the causes of such a condition among accoucheurs, no one is more operative than the too strict adherence made to aphorisms taught in early education, especially the one that "meddlesome midwifery is bad midwifery." No man in early life more tenaciously embraced this as a rule than myself, until experience proved to me that I was so far wrong. This axiom, although good in the main, is, when too implicitly followed, apt to mis-

guide a mind not sufficiently self-relying, and to lead to the irretrievable destruction of the future comforts of some women, and to placing the valuable lives of others in jeopardy, when early and judiciously applied manual or instrumental aid would have entirely prevented the evil. It is my firm belief that almost every case of vagino-vesical fistula, of which we have lately heard so much, would have been prevented had practitioners early resorted to well-directed manual or instrumental aid on the occasion of the delivery of these subjects. Gentlemen ought, then, well to understand when to interfere, and how to interfere, and when to allow nature to carry on her own unaided efforts.

In setting forth the particulars of maltreated cases, where the errors committed are carefully pointed out and the right treatment indicated, I believe, in a Society like this, more benefit is derived than by the relation of cases which have been simply judiciously treated, and that a more forcible, permanent, and useful impression is made on the inexperienced by the former than by the latter. Such has been the case with myself, and therefore I excuse myself in bringing before the Society what I believe to have been errors in the treatment of cases which I shall describe, committed by some gentlemen who are now no more, and by others unnamed in the record, whose reputation cannot thereby be damaged.

My apology for the character of this paper is that my experience has been peculiar, arising from my position in practice. During twenty years I was parochial medical officer of one of the largest and most densely populated districts of the parish of Lambeth, containing from 15,000 to 20,000 inhabitants, chiefly paupers; it was, therefore, my lot officially to conduct a large proportion of cases requiring manual and instrumental aid, cases which occurred in the practice of the parochial midwives, who personally attended all ordinary labours in their districts, but who called in the aid of the medical officers in those that were preternatural or in any way complicated. During the above period, and since that time also, some of my colleagues and

some others of my neighbours sought my assistance in cases of poor people, where the experienced aid of gentlemen living at a distance, and connected with large public midwifery institutions, could not so easily be obtained. These opportunities have shown me that some practitioners have little or no faculty in detecting the relative condition of the size of the fœtal head and capacity of the pelvic brim; and they allow women to linger in labour, suffering strong expulsive pains without advancing in the process, not only for hours, but even for days together, and so become exhausted before they would resort to artificial aid. This, however excusable when attending on a first case of the kind, certainly cannot be so in a second, nor in that of a woman who had suffered in an instrumental delivery, even if it had occurred under the direction of another; as it is always the duty of every accoucheur, when he undertakes to attend on a labour, to ascertain what has been the character of former deliveries, and so to prepare himself for interfering at the time of labour as the case is likely to require. No man should ever allow a second case of craniotomy to be necessitated in the same subject, nor a case of death to the child produced by delivery by the use of forceps, where such had been the case before; for after such occasions it is the duty of every practitioner to impress deeply on the mind of the patient the absolute necessity of having artificial labour induced in every future pregnancy at the legal period of gestation, at seven months and two weeks, or eight months, after the last period of menstruation; but this duty I have known to be most censurably omitted in several instances, and with the severest consequences.

To elucidate what I have stated, I will describe the first lamentable case of craniotomy with which I was ever connected, with its antecedents, progress, and end, from which I learned practical lessons of inestimable value, never to be effaced from my mind.

In the evening of the 14th of July, 1826, I was requested by a medical friend to see, with him, a patient, aged twenty, residing near Kennington Common, who was in labour, at

her full time, with her second child. The case was not his own; he was attending for another medical man, who, after having watched it throughout the whole of the day, had been called to another woman, when he intrusted the charge of this woman to my friend, who, having waited for some time, and having found that the head, which was presenting, made not the smallest descent into the pelvis, although the os uteri was fully dilated and relaxed, and the expulsatory pains were continuous and violent, sent for me. After having conferred together, and having found, on inquiry of the friends, that she had been delivered of a small child by craniotomy twelve months before, we determined at once to attempt to deliver with the forceps; but, in attempting to introduce the first blade, I was perfectly foiled by the head being immoveably crammed into the bony rim of the pelvis. We then discovered that we could not deliver except by craniotomy, and as neither he nor I, at that time both young in practice, had ever perforated, and the case appeared most formidable, we agreed to send for Dr. Walshman, who was then in reputation as an expert operating accoucheur. On his arrival he did not hesitate directly to perforate, and having with the crotchet scooped out the brain, proceeded with the same instrument to deliver, in which he completely failed. Indeed, when I sat by, witnessing the constant and futile efforts which he made, and the dreadful lacerations which he produced in the vagina by the constant slipping off of the instrument from the bone of the skull on which it had been fixed, I suggested to the doctor that he should use an embriotomy forceps, with which I was provided. To this he strenuously objected, as he had never used such an instrument, and had never before failed to deliver with the crotchet. After thus vainly attempting to deliver for more than two hours, and when the woman had become nearly exhausted, Dr. Walshman gave her forty drops of laudanum, and suggested that we should leave her for an hour, in order to give her a respite from suffering, and to procure for ourselves some refreshment. At the end of this time we again met; when, on exami-

nation, we found, to our grief and astonishment, that nothing but the flabby os uteri could be felt, and that the woman was dying; indeed, the uterus had been ruptured, and the child, by the contractions of that organ made in our absence, had been carried through the rent into the abdomen, where, on the post-mortem examination, it was found lying amongst the intestines. The woman died in half an hour. Now, what was to be learned from all the circumstances connected with this dreadful case?

1st. That the woman ought not to have been allowed to be in the condition in which she was at the time of the coming on of this, her second labour; that the medical man who had delivered her by craniotomy on the first occasion should at that time have convinced her that it would be at the peril of her life if, in any subsequent pregnancy, she should not be delivered by artificial means at a period of gestation not prolonged beyond seven months.

2dly. That the other medical man, when he undertook to attend at her delivery, should have diligently inquired into every particular connected with the former delivery, and should have induced premature labour at the legal period.

3dly. That the case ought not to have been allowed to proceed under violent expulsive uterine effort for so many hours without an attempt being made to deliver by instrumental aid, when the strength was not expended, and

4thly. That Dr. Walshman should not have so obstinately persisted in his attempts to deliver with the crotchet, when so safe an instrument as the craniotomy forceps was ready at hand.

In my subsequent experience I have met with many cases where medical men, withheld by the maxim "avoid meddlesome midwifery," or wishing to avoid the supposed loss of position or reputation by calling in the aid of others, had allowed violent, continued, exhausting, ineffectual uterine efforts to proceed, not only for many hours, but even for many days, without adopting or procuring artificial aid, by

which the lives of many children have been lost, and the lives of many women jeopardised.

The following is a very severe case of the kind, and is a severe type of many others that have occurred to me. On Sunday morning, April 2d, 1854, I was called to a policeman's wife, in labour with her first child, a robust woman, about thirty-three years of age, about five feet six inches in height, and very erect in her gait. She was attended by a neighbouring practitioner, and had been in strong labour for four days, with the vertex of the child presenting. Labour began on the evening of the preceding Wednesday, and continued gradually increasing in intensity until early on the Thursday morning, when expulsive pains came on, and continued until a little after mid-day, at which time the membranes broke, after which violent and continued expulsive pains occurred until night. After this evening no further movement of the child was felt to the end of the labour, although during the whole of the afternoon of Thursday it could be distinctly discerned.

During the whole of Thursday night, Friday and Friday night, and up to Saturday afternoon, the same violent uterine efforts were made, but the head did not descend below the brim; accordingly now the medical attendant had recourse to the counsel of a neighbouring friend, who, having hastily examined into the state and progress of the case, decided that artificial interference might be postponed, as it was his opinion that the woman would soon be delivered, her pains at the time being expulsive and strong; he therefore advised the attendant to wait. However, the same state of things continued all night, and until Sunday morning about 9 o'clock, when the two gentlemen again met. At this time the one called in to advise saw for the first time the jeopardy in which the woman lay, as she was evidently suffering from exhaustion, and the head had not changed the position it held on the afternoon of the day before, which was the same as that on Thursday evening, and between two and three days previously; accordingly, they agreed to send for me, when I concurred in their opinion that the woman

was indeed in jeopardy; and I added, she must be delivered forthwith, and by embryotomy.

The clearest evidences existed that the child was dead. First, it had neither moved nor had been felt by the mother since Thursday night; secondly, a very fetid discharge came from the vagina; and thirdly, no palpitation of the fœtal heart could be discerned by auscultation through the walls of the abdomen. I accordingly proceeded to perforate the head, and to deliver by the embryotomy forceps, which I accomplished within a quarter of an hour after I had first introduced the perforator. The child had undergone great decomposition, and thereby the delivery was greatly facilitated. The placenta came away very soon with the natural efforts of the uterus, and the woman, although exhausted, did well and had a rapid recovery, much against my expectation. In the course of the operation I wounded the point of the thumb of my left hand with a spicula of one of the parietal bones, to so slight an extent as not to have detected it until some hours after, by which I inoculated myself with the putrid matter of the child. From this I suffered alarming inflammation of the absorbents of the forearm and upper arm, even to the axilla; but under the kind care and wise direction of my friend, Mr. Henry Hancock, who freely incised my hand, after a month's absence from my practice, I was again enabled to return to my duties. I now advised the medical man whose case this was never to permit this woman on any future pregnancy to go on to her full period, but to induce artificial labour at seven months and a fortnight after her last catamenial period. About twenty-one months after this occurrence I accidentally met the wife of this practitioner, who told me that the patient was again pregnant, and nearly nine months advanced, and that the doctor had attempted to bring on artificial labour at the period which I had advised, but had failed. I then told her that he had certainly left the woman's life in jeopardy, yet if he wished it I would meet him on the next day at the woman's house, to consult as to what should be done for her; accordingly we met, when I forthwith proceeded to

puncture the membranes, willing to give her any advantage of time in her labour which I might be able thereby to effect. This was done at 3 p.m. on 31st December, 1855, and labour-pains came on at 12 at night. At 4 a.m., January 1st, my medical friend and I were summoned to her bedside, when we found the os uteri fully dilated, with the breech of the child presenting, but so high up in the pelvis as to be quite above the brim. She was now suffering very violent expulsive uterine pains, producing no effect in expelling the child, although the os uteri was nearly fully dilated; indeed, the antero-posterior diameter of the pelvic brim was only about two inches and a half, and therefore it could not descend. I then, after very great difficulty, forced up my hand until I reached a foot, which I laid hold of at the very points of my fingers, and which, after some time, I succeeded in bringing into the vagina; by this I drew down until I could reach the other foot, which, after protracted exertion, I also brought down. I now proceeded to draw the breech through the brim, which I accomplished only after having made very long and indeed violent efforts; but now the body of the child, which was very large, so filled the long canal of the pelvis, that it was impossible to pass the hand in order to bring down the arms. Nothing but evisceration of the abdominal and thoracic cavities could now avail me, and I hoped thereby to procure room further to effect my object; but having done this, still I failed. I then removed the lower part of the body, by dividing it as high up as I could reach with the scalpel; it was between the third and fourth dorsal vertebræ. At this stage of the operation, and having now for some time endeavoured still to bring down with the blunt hook an arm, without success, we agreed to send for my friend, Dr. Waller; but just before he arrived I had succeeded in bringing down one arm, and at the time he arrived I had just begun to attempt to bring down the second. I then gave the case into his hands, and he, after some time, brought down the second arm, and by great exertion judiciously directed and continually applied, after a further protracted period, he brought away the head.

The woman, liberated for the second time, again did well. I now, with the consent of my medical friend, undertook to conduct this case in any future pregnancy that might occur. She soon became pregnant with her third child, when, at the end of seven months and a fortnight from the last appearance of the catamenia, on 7th October, 1856, I again induced labour by puncturing the membranes; and having sent for my friend as soon as labour had sufficiently advanced, we together watched the case to the end; on this occasion the vertex presented, but the most violent uterine efforts could not bring the head through the brim; I accordingly delivered by the forceps, which required considerable exertion to effect, but a living child was born, which lived fourteen hours.

The woman again had a good recovery. On the 4th July, 1857, I had to deliver for the fourth time by bringing on labour at the same period of gestation, and by the same means as before; but now the case was attended with difficulties quite as great as had attended any of her former deliveries, for, when labour began and the presentation could be distinctly made out, I found a hand presenting, and, as soon as the dilated os uteri would permit, I attempted to introduce my hand into the uterus for the purpose of turning, and delivering by the feet; but this was quite imposible, as I could not, with all the efforts I could make, pass my hand (a more than ordinarily small one) through the brim into the uterus, and as I perceived that nothing but dismemberment of the child would enable the woman to be delivered, I sent again for my friend, Dr. Waller, who had so satisfactorily completed her second delivery. He dismembered the child, first, by removing the presenting right arm and scapula at the clavicular attachment, and then the left, which he had the greatest difficulty in reaching and bringing into the vagina. He then eviscerated the chest and abdominal cavities, by perforating the former between the ribs, which being done, enabled him, by well-directed manipulation, to lay hold of a foot, by which he turned and drew down; but when the body had passed the brim, then came the difficulty

with the head, and although it was only the soft head of a fœtus of seven months' gestation, it required our united strongest efforts to draw it through the brim. The uterus again kindly and naturally contracted, and threw off the placenta. She again did well. At this time Dr. Waller and myself agreed that it would be proper to bring on labour in any future pregnancy at six instead of seven months' gestation. Accordingly, on the 31st December, 1858, at the period of six months and a fortnight from the period of her last catamenial discharge, I punctured the membranes, which, after several hours, induced labour. At this time I was engaged elsewhere, from whence I was instantly fetched; but before I could arrive to her assistance, my friend, Mr. Remington, had attended and delivered her. The presentation was footling, and the child, of course, was small, yet still difficulty was found in bringing down the arms over the face after the body had descended into the vagina, and considerable force was required in order to deliver. Her last labour was on the 2d December, 1859, which was brought on in the same way as those described, and at six months and two weeks after her last menstruation. The presentation was footling, but I had great difficulty in delivering the head after I had brought down the arms. She again did well.

My experience in this highly interesting case, as well as in many others, perfectly satisfies me that it is not wise to adopt the modern recommendation to deliver by turning in cases of small pelvic brims, and that whenever we can deliver with the forceps in such cases we should do so, as thereby we have a far better chance of saving the child than by turning. Indeed, the fact that children born through pelvic brims of normal capacities, by footling or breech presentations, are more frequently born dead than when born by the natural, that is, by the vertex presentation, should be enough to prove the same. The unavoidable pressure of the head on the funis, as it passes the brim, is the cause of this, and if the capacity there be small, and the head be long detained in the passage, nothing can prevent the death of the child,

whilst most deliveries effected under such circumstances by the forceps result in bringing away living children.

From the relation of this case two lessons are to be learned. The first, the impropriety of allowing a woman to be in violent labour for four days, without having had any attempts made to deliver by artificial means. At her first labour, she should have been delivered by craniotomy from forty-eight to sixty hours before the operation was performed. The second, the propriety of producing artificial labour at seven months' or even at six months' gestation, under urgent circumstances; and I am sorry to say that within the last few years many cases have fallen into my hands, where violent ineffectual labour had been allowed to be proceeding for many days together, without any artificial assistance having been given, to the great jeopardy of the unnecessarily suffering mothers and to the death of the children.

There is another evil, which often arises in practice, from not ascertaining with precision what is the character of presentations early in labour, at a period when turning, if necessary, may with comparative ease be effected, which, in a future period of labour, often becomes very difficult. It is shown in the following case.

On the 28th August, 1859, I was called by a medical friend to a case attended by another gentleman, which my friend had seen; it presented, according to his description, a strange anomaly. The woman was in labour with her first child, and had been suffering preparatory pains for some hours before the medical attendant was summoned. When he came to the case he found a presentation which he could not satisfactorily make out. It was that of a rounded, soft, fleshy body, not the nates, for no tuberosities of the ischia, nor thighs, nor genitals, could be felt; it was thrust some distance into the pelvis, and, in a very short time, violent expulsive pains came on, which brought this substance far down, almost to the external labia, where it seemed to be immoveably crammed, and where it was allowed to remain for two hours and a half, under the most violent expulsive pains. Just before I arrived, the right arm of the child had

been forced through the external labia, when, of course, I could have no difficulty in my diagnosis. I found that the presentation at the beginning had been the right side of the abdomen of the child, and that subsequently the ribs had also descended. The capacity of the pelvic brim and cavity was unusually large, and admitted of the child, doubled up, being thrust almost to the outlet. It was most violently crammed into its position, where it had lain immoveable for two hours and a half, and it was my opinion, at first, that nothing but evisceration of the child would enable the woman to be delivered. The head of the child, at this time, was thrust into its abdomen, pushing it towards the outlet, and was pressing on the funis in this position. I had never diagnosed so extraordinary a case before; the whole mass, completely doubled up, attempting to escape with every pain through the canal, but detained by the head and nates held above the brim, or rather at its entrance. I first attempted to thrust back this mass, but I found it immoveably fixed; accordingly, I put the woman under the influence of chloroform, not to perfect insensibility, but to a condition only just short of it. I then passed my left hand over the child's spine, tracing it upwards with my fingers until I reached the occiput, on which I pressed with the points of my fingers in a direction upwards and forwards, whilst I passed the first two fingers of my right hand over the soft abdomen on to the right groin, and thus, by pushing up the head with my left hand and bringing down the hips with the right, performed a rotatory action, turning and delivering, by a footling delivery, a male child, that was dead; but I very much doubt whether I should have so succeeded if the pelvis had not been of extraordinary dimensions. The position in which I found this case ought never to have been allowed to exist, for the woman ought to have been delivered two hours sooner by turning, when there would have been no difficulty in passing the hand into the uterus, and the child would certainly have been born alive. The child was killed by the violent efforts of the uterus pressing the head so long upon the funis, placed between it and the pelvic bones of the child.

This case teaches how necessary it is rightly to diagnose the character of every presentation early in labour. I have alluded to the necessity which occurs for the induction of premature labour; many cases, originally attended by others, requiring this to be done in subsequent labours, have fallen to my lot. I have often heard of injecting the uterus; of the use of galvanism for this purpose; but I have never failed in accomplishing it satisfactorily by discharging the liquor amnii, effected by an instrument of my own designing; it is, indeed, a common œsophagus tube, through which I pass rather a firm, straight, steel, silvered stiletto, sharpened to a lancet-shaped point, with a screw stop fitted to the outer extremity, by which the depth of the puncture in the membranes can be regulated. It can also, if necessary, be passed through the placenta itself, if found over the os uteri. When I use this instrument, I first introduce the elastic tube alone, within the os uteri, and when it has passed up so as to be in contact with the membranes, I introduce the stillette, graduated so as to pass to the depth required, through the tube, and when the stillette has penetrated the membranes I have evidence of it by the flow of the liquor amnii through the tube. This instrument has very often served me, and it did so not long ago, in a case of a narrow-brimmed pelvis, which, during its progress, our esteemed President did me the favour to see with me, and in which the placenta lay over the os uteri. The case did well. I have very lately derived great advantage from the use of this simple instrument in an alarming case of placenta prævia, which I fully expected would have proved fatal, but which mercifully escaped.

On the 9th January, 1860, I was called to a lady in her sixth pregnancy, who, on getting out of bed to pass her urine, was alarmed by a sudden gush of blood, which passed from her vagina, and which, according to her account, half filled the utensil. She believed herself to be at this time within a month or three weeks of her delivery. During the whole course of her pregnancy she had suffered extremely from aggravated dyspepsia, which had reduced her to a mere skeleton, as it were, covered with skin-like, sallow-coloured

parchment. Under these circumstances, fearing that the placenta was lying over the os uteri, and she in an exhausted condition, I expected death would follow her labour, which was sure to be attended with more or less hæmorrhage. I accordingly directed that she should confine herself to the bed, and take nutritious but unstimulating diet; no bleeding followed this one gush for several days, and I took temporary leave of her, with the understanding that should the bleeding recur, in the smallest degree, I should immediately be sent for. However, she did not strictly regard this injunction, and she had slight discharges of blood, occasionally, up to the 31st of January, when, early in the morning, I was sent for again, and in haste, as she had suffered from diarrhœa in the night, and, on going to the night-chair, had passed a large quantity of blood. On examination, I found the vagina filled with clots, and the os uteri open to the size of a sixpence. She had no pain. However, by pressing the finger into the os, I induced slight pains, which, on withdrawing the hand, entirely ceased. At this time there was no hæmorrhage, and I left her until 9 p.m., when I learned that during the day she had felt slight pains at intervals of three quarters or half an hour, and had passed, from time to time, small quantities of blood. The os uteri was now open to the size of a shilling, and, after each pain, bleeding followed. I now dilated the os uteri with my finger, when the soft placenta was distinctly felt, and as soon as I could pass my finger quite into the uterus and had separated the placenta to the extent of little more than an inch all round, which was as much as I could reach, I found posteriorly, to the extent of less than a sixpence, a soft substance like the membranes, with the liquor amnii contained behind them. The hæmorrhage was now continually increasing, and I knew that nothing but bringing the head to press upon the bleeding vessels could control it; accordingly, I passed my perforating tube over my finger into the opening, and when it was firmly fixed on the bladder-like substance, I passed the stilette through the tube, and punctured the bag, when the liquor amnii immediately ran off through the tube; this brought

on uterine action, which, although feeble at first, yet, after a time, by pressing the head on the os uteri, was sufficient to control the hæmorrhage. In a short time the pains increased in intensity and frequency, and dilated the os, so as to enable me to entirely separate the posterior margin of the placenta. I now gave three doses of freshly powdered ergot, each of half a drachm, at half-hour intervals, which was followed by increased uterine effort, that brought the head firmly to press upon the open vessels, and thereby completely stopped the hæmorrhage, which by this time had become very severe; labour proceeded regularly during the next two hours, when delivery of a dead male child was effected. The placenta came away by slight manual assistance, within twenty minutes. Every precaution was taken to prevent fainting, by the application of a firmly-placed bandage over the abdomen, and by the exhibition of brandy and water. No hæmorrhage followed the delivery of the child, and this emaciated, exhausted woman was snatched from extremest jeopardy mainly by the advantage gained in the use of this perforating tube. She was supported through the course of the labour by the constant exhibition, at intervals, of beef-tea and brandy and water. She had a rapid recovery, and soon increased in flesh and in strength.

In conclusion, I would apologise for what may be considered the commonplace character of this paper, which, I trust, the Society will tolerate, considering the only objects which I have in producing it are to exhibit some of the quicksands into which the obstetrician is liable daily to fall in the course of his ordinary duties, and the common rules to guide him in avoiding them, which I here recapitulate.

1st. He should never omit to inform himself accurately as to every particular connected with every former delivery, when his services are engaged to attend on any case, at an approaching labour, so that he may be quite prepared to act judiciously, as circumstances may dictate, either before the event or at the time thereof.

2dly. He should carefully educate himself, so that he may

acquire a good and accurate diagnostic touch—absolutely necessary to guide him in ascertaining accurately, early in labour, the true nature of the presentation, as well as the capacity, normal or otherwise, of the bony passages—a desideratum essential in every good accoucheur.

3dly. He should take care never to allow of the possibility of any evil consequence following an unnecessarily protracted labour, which he had the means of preventing by adopting early and judiciously applied manual or instrumental aid.

4thly. He should never omit to induce premature labour in cases where permanent mechanical interruptions in labour at full time were previously known to exist, by puncturing the membranes at the legal period of seven months and a half or at eight months' gestation, which can so easily and safely be done by using a proper instrument for that purpose, such as I here exhibit.

And 5thly. In the present improved condition of instrumental appliances for delivering in craniotomy, &c., he should never rely on the use of such an instrument as the crochet, which, in the hands of even reputedly expert operators, has been known often to produce great injury, sometimes to the operator, but more frequently to the patient.

SPECIMEN

OF A

DOUBLE BATTLEDOOR PLACENTA,

WITH A

SINGLE UMBILICAL CORD, CONNECTED WITH ONE CHILD.

PRESENTED BY

JOHN HALL DAVIS, M.D.,

PHYSICIAN TO THE ROYAL MATERNITY CHARITY, TO THE ST. PANCRAS INFIRMARY, AND TO THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY.

Read November 7th, 1860.

THIS placenta came from a lady, æt. 27, whom I attended in her second confinement at full term three weeks ago. The labour was natural and easy; the child living, healthy, a male, of average size. The membranes broke shortly before the child's birth, and being tender, they in great part came away at the same time.

After waiting half an hour, and finding the uterus well contracted, I examined and found a placental mass at the upper end of the vaginal tube. By pressure over the uterus, without making traction, the presenting placenta descended, and passed out at the os externum. It proved to be the smaller of these two masses. Observing the cord still fixed internally, I re-examined, and discovered at the top of the vagina another placental body, which I removed by abdominal pressure alone as before.

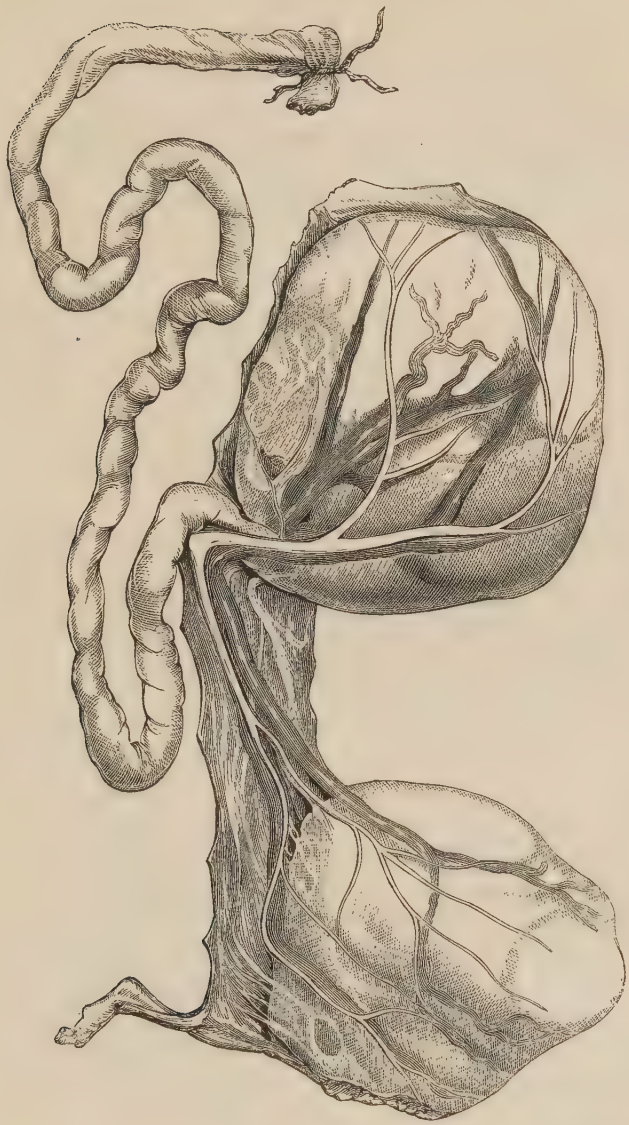
The smaller of the two placentæ differs from an ordinary placenta in its larger size, and also in not being an appendage of the larger placenta. The single cord passes directly to the larger mass, and to its edge as in the so-called battledoor placenta, but before quite reaching it, its

vein and arteries give off laterally, at an angle, vessels for the smaller placenta; these vessels run a length of three inches before entering its substance, and divide at its margin, as in the case of the larger placenta. The umbilical cord presents the ordinary appearance and the usual number of vessels, viz. one umbilical vein and two umbilical arteries. The placenta appeared perfectly healthy.

The weight of the placenta and cord amounted to one pound seven ounces, being an excess of the average weight of a single-birth placenta. The greatest length of the larger mass was six and a half inches, of the smaller mass four and a half inches. Length of the cord, twenty-eight inches.

It is of practical importance to reflect that, had the vessels connecting the smaller placenta with the cord been of weak consistence and torn across, and no re-examination made, it might, as sometimes has happened in the case of ordinary placentæ, have been left behind, and thus might have led to the same evil results as those of a retained and putrescent placenta.

This patient's former labour was not attended by any difficulty, but I may incidentally mention that I then discovered attached to the posterior wall of the uterus, at its peritoneal surface, a fibrous tumour, of the size of a small orange, with a very short pedicle; I found this also after the recent delivery, and could distinctly feel its outline through the walls of the abdomen. It had undergone no appreciable increase of size, and this labour was of shorter duration than its predecessor. The accompanying drawing shows the appearance which the above specimen of placenta presented not long after its expulsion.



CASE

OF

SUDDEN APOPLECTIFORM SEIZURE,

TERMINATING FATALLY IN THIRTY-FIVE HOURS, ON THE SIXTH DAY OF LYING-IN.

BY

R. UVEDALE WEST, M.D., F.R.C.S. Edin.

Read November 7th, 1860.

I have the following scanty notes of a case which occurred in my practice in June, 1860:

Mrs. W—, of Bilsby, near Alford, was confined at about 10 p.m., on the 4th of June. She was a woman of rather full habit of body, with a remarkably dingy, freckled complexion, of the colour of dried clay, suggesting the idea of imperfect elimination of urea from the blood. Having, several years ago, had three children, she remained eleven years without childbearing, when she had three children as quickly one after another as she well could; viz., March 3d, 1858, June 15th, 1859, and the present child, June 4th, 1860. Her confinement in 1859 was attended with violent post-partum hæmorrhage, and was followed by some troublesome febrile symptoms during the puerperal month, terminating in phlegmasia dolens.[1] Towards the end of her last pregnancy I was called in one day as I was passing her cottage to see her. She was suffering from aphthæ in the mouth, and in other respects was in a bad state of health generally. I gave her some ordinary medicine for her relief, and heard no more of her until I was called upon to attend her

[1] *Vide* Case 47 in the Table of Cases published, pp. 195-202, 'Obstetrical Transactions,' vol. i.

in her confinement about a month after. On this occasion she had a very easy, quick labour, attended, however, with incarceration of the placenta, which I removed easily at the end of about ten minutes, by introducing the hand into the uterus. For the first day or two there was a good deal of hæmorrhage, but, on the whole, she went on very satisfactorily, and without an unfavorable symptom of any kind, until Friday morning, June 8th; the fifth day of the lying-in. On that morning she had a cup of tea about 5 o'clock, and a breakfast at 8 of tea and toast, conversing cheerfully with her nurse and surrounding relatives, and making no complaint of any uneasy feeling whatever. It was, however, only the calm before the storm, for at 10 o'clock she was suddenly seized with a kind of fit, and I was summoned to her bedside. I found the patient in the condition described in the following report:

June 8th, 11 a.m.—Semi-comatose; speechless; pulse 100, calm and soft; lochia sufficient; milk abundant (I found that the child had died the day before, so that the breasts were a good deal distended); she could move the leg and arm of the left side, frequently rubbing her face with the hand of that side, but there appeared to be complete loss of voluntary power in the limbs of the right side, the arm being quite rigid, in a semi-flexed position, and the hand tightly clenched; the jaw, too, was rigid, and could not be opened, although, when sharply roused and requested to put out her tongue, she was able to show some of the tip of it, but that was done only when I forcibly pressed down the chin; the tongue, as far as I was enabled thus to see it, was clean; the pupils were both alike, neither contracted nor dilated unduly, and perfectly obedient to the light; there were no convulsive twitchings, and, with the exception of the occasional (voluntary?) motion of the left arm, she lay perfectly still; the respiration was easy and quiet, not stertorous at all. The bowels had been twice moved the day before. There was no urine forthcoming for examination; but as there was no œdema of face or ankles, I did not care about that. On the whole, I was induced to flatter myself

that the symptoms depended on nothing more serious than one of the protean forms of hysteria, induced by trouble of mind; her two previous children, as well as her present, having survived their birth only a few days, to her great regret. I applied a sinapism to the nape of the neck, and gave her the following medicine to take:

℞. Magnesiæ Sulphatis, ℥j;
Tinct. Valerianæ, ℥ss;
Spiritûs Ætheris Nitrici, ʒvj;
Mist. Camphoræ, ad Oss. M.
Sumat coch. ij 3tiis horis.

June 9th, 11 a.m.—Still silent and semi-comatose; had not spoken since her seizure; had taken her medicine, but no food of any kind; the bowels had not been moved; a neighbour's child had sucked the breasts, by my orders, for I thought it desirable to keep up that secretion at any rate; there was the same state of stiffness of right limbs, and the same, apparently voluntary, mobility of left hand and arm; the same stiffness of jaw, as yesterday; there was no distortion of features, neither were there any convulsive twitchings; there was the same condition of the pupils, the same condition of respiration; the pulse 96, calm, full, and soft. As I have just remarked, the bowels had not been moved, but she had passed her urine in the bed abundantly; the skin, as it was yesterday, was cool, moist and natural. I ordered her half an ounce of castor oil. She had taken all her mixture, and I ordered it to be continued.

Same day, at 6 o'clock p.m.—Had been thrown into an agitation by the act of taking the castor oil, and since then had been very turbulent, tossing her left arm about, and trying to raise herself up in bed. She was now in a profuse perspiration, with a quickened, weak, and sinking pulse; her respiration hurried, not stertorous, but sibilant, as if blown forcibly through the teeth; the bowels had not acted. She died at half-past 8 that evening, about thirty-five hours from her first seizure.

I was allowed by the husband and friends to examine the head, but nothing further.

Post-mortem inspection on Monday morning, June 11th (in which I was assisted by Mr. Handsley).—The dingy, dirty, freckled complexion of face was now more striking than during life. On incising the scalp down to the pericranium, there was a considerable escape of gas. There was a patch of extravasation as large as a crown-piece inside of the scalp, covering the left side of the occiput, and a similar smaller patch in the same situation on the right side. I thought it possible that these were bruises caused by the patient having, during some of her turbulent movements, knocked the back of her head against a board at the head of her bed. The skull was unusually thin, and was very easily sawn through. The brain was much congested on its surface, but its tissue was healthy, with the exception of some small patches of softening outside of the left choroïd plexus. The lateral ventricle on that side was empty, but the right lateral ventricle contained a considerable quantity of serum, of a slightly bloody tinge. There was no extravasated blood anywhere in the brain. The cerebellum was healthy throughout.

If a sufficient cause of death had not been found in the brain, it would, for several reasons, have been highly desirable to have examined the kidneys, notwithstanding the absence of œdema of the face and ankles, and especially so as it was not possible to obtain a specimen of urine for examination. I scarcely think that an inspection of the kidneys could have thrown any additional light on the case. It was certainly not one of *eclampsia.*

A CASE

OF

OVARIAN TUMOUR,

WEIGHING SEVENTY-SIX OUNCES AND A HALF,

IN A GIRL OF TWELVE YEARS AND A HALF OLD, TERMINATING LIFE SUDDENLY BY ASPHYXIA.

BY

R. FAWCETT BATTYE, L.R.C.P. Edin., &c.

Read November 7th, 1860.

I was called in, at 5·30 p.m. on August 7th, 1860, to see the body of S. R—, at No. 21 —— Street. She had expired about five minutes before my arrival. The circumstances connected with her death were very peculiar, and the cause of death so mysterious, that an inquiry by inquest was deemed necessary.

S. R— was about five feet in stature, well proportioned, and of firmer and fuller muscular development than is usual for girls of seventeen years of age; the mammæ were of a tolerable size and firmness, the ilia were broad and expanded at their crests, and the external pelvic proportions were those of a young woman. She had menstruated some eight months, but the last three months there was scarcely any discoloration, according to the mother's account. The abdomen was large and firm, and externally, over the clothes, felt very similar to pregnancy of four to five months' duration. The face, neck, and arms were of a dirty-blue look; the mucous membrane of the lips and alæ of the nose was blue and somewhat congested. The limbs were flaccid, and, with the body, were quite warm.

Her mother informed me that she was scarcely thirteen

years of age; and at the inquest the sister stated that on her last birthday she was twelve years of age, and at the time of her death she was twelve years and seven months old. The age in this case is very important in relation to the subsequent details.

Previous history.—Her mistress in whose service she was stated that her health had been remarkably good since she had been with her, which was about seven months. The girl was industrious, but slow and plodding in her ways, never going about her duties quickly or with any kind of animation. At times she appeared very drowsy, and if she sat down was prone to fall asleep. On the 5th of August, two days before her death, she had slight headache, and also the day following. On the day of her death the headache still continued, but it was not very severe, and she was at her duties from 7·30 a.m. till 3 p.m., when she walked down stairs and laid herself upon the bed. She took some salts and senna in the morning, by the advice of her mistress, as the bowels had been confined for two days. The medicine acted twice; but from 9 o'clock in the morning until ten minutes before her death she had the most intense thirst, to quench which she drank coffee and cold water in great abundance. The thirst was accompanied with sickness, though not of a very distressing character, so far as could be gathered from her mistress, and the fact of her continuing to perform her usual duties tended greatly to confirm her statement. About ten minutes before S. R—'s death, the face, neck, lips, and arms assumed a very dark, livid hue, much darker than was observed ten minutes after death, and the face appeared to those present to be much swollen at this time. The livid hue first appeared about 3 p.m. She died at 5·25 p.m., retaining perfect consciousness to the minute before death.

Post-mortem, forty-four hours after death.—The general hue of the body, especially that of the face, was a livid blue, save where decomposition or gravitation had interrupted the normal state and had turned the parts to a dark-red colour, as about the neck, armpits, and inner side of

the thighs, &c., or else to a grass-green colour, as on the left side of the abdomen. The rigor mortis was well marked.

The general frame—the trunk and limbs—was that of a short, muscular, and well-developed young woman. The mammæ were firm, round, and well developed; the scalp was covered with fine, long, and dark, curling hair; the armpits and pubes were well protected by hair, and the labiæ majora were large; the labiæ minora were prominent, and somewhat in advance of the external labiæ; the clitoris was long and prominent; the hymen was perfect.

The abdomen was large, round, and very unyielding to pressure.

The internal parts I will give in order, beginning with the head, and proceeding downwards.

The brain and its membranes were quite healthy; but the vessels of the pia mater covering the convoluted surface of the cerebrum, and dipping between the laminæ of the cerebellum, were engorged with dark, venous blood.

On opening the chest the liver was observed to be pressing upwards, and occupying much of the space common to the right lung, by means of which that lung was greatly compressed; the liver, separated from the lung by the intervening diaphragm, reached to between the fifth and sixth ribs anteriorly.

To return to the contents of the chest-cavity. The heart, with its inclosing pericardium, was perfectly healthy; the left side had scarcely a vestige of blood, but on the right side the cavities, especially the right ventricle, were occupied with imperfectly coagulated blood. The pleuræ of both lungs had no adhesions, and were healthy throughout.

The left lung occupied its natural site, and in texture was perfectly normal.

The right lung, as before stated, was observed, on opening the chest, to be greatly compressed by the liver. This lung, when removed, appeared about one half the usual size; it was slightly loaded with blood posteriorly, but it was evidently a post-mortem sequence. There was no splenization or any other indication of inflammation; in colour it

was slightly paler on its anterior surface than was the left lung. The elastic, spongy, and crepitating feeling could only be detected over two small isolated parts; the larger portion, being about an inch and a half in diameter, occupied a portion of the inferior lobe posteriorly, and the smaller space occupied a portion of the superior lobe towards its apex. The remainder of the lung was soft to the touch, but tenacious in relation to its own continuity of substance.

There was no sign of tubercular deposit in either of the lungs, in any form whatsoever.

The abdominal cavity.—This cavity was greatly enlarged, and had all the appearance of pregnancy, from a large, smooth, ovoid tumour, arising from the pubic region, and occupying full one half of the abdominal cavity. The tumour had a decided leaning to the right side.

The stomach was healthy in appearance, save towards the lower border of its larger curvature, where it was somewhat congested; but this was a post-mortem result. In size it was rather smaller than usual; its contents resembled thin, watery gruel, and in quantity did not exceed three fluid ounces.

The duodenum was healthy, but contained a much thicker, gruel-like material, perhaps to the extent of four ounces; but in the small intestines there was scarcely the slightest relic of anything. The jejunum, ileum, and colon were perfectly healthy.

The liver was greatly enlarged, and extended to about half an inch beyond the centre of the epigastric region on the left side, whereby the stomach was slightly compressed. All its lobes were in due proportion to each other, and in every respect it was healthy in appearance and of suitable firmness upon pressure. The gall-bladder was distended with greenish-yellow bile. The liver weighed fifty-one ounces and a quarter.

The spleen was a little enlarged; of a much darker hue than usual, assuming a somewhat blue tint. It was engorged with blood equally throughout its whole substance.

The uterus was small, firm, and healthy. The vaginal

pouch was narrow, pale, and covered with a thick, whitish-yellow mucus.

The left ovary, with the contained parts embraced within the folds of the broad ligament, were all healthy.

The right ovary was very much enlarged, soft, and so loaded with blood, retained between a kind of network of irregular size and order, that its structure was no longer discernible. The Fallopian tube and fimbriæ of the same side appeared to be involved in the same disorganizing process; indeed, save one fimbria, the entire fimbriæ were so implicated in the general disorganization of the ovary, that their true anatomical relations to the ovary were lost.

From the superior surface of the right ovary, and extending from thence by a narrow border all along the Fallopian tube to the point of its insertion into the uterine walls, arose a tumour of large size and ovoid form, extending from the brim of the pelvis to within an inch and a half from the liver, the intestines between these parts being closely compressed. The whole of the centre and lower part of the abdomen was occupied with the tumour, there being, nevertheless, a greater amount of substance towards the right side. Its long diameter lay in the transverse direction to the mesian line of the body.

The tumour was enveloped in a layer of serous membrane, continuous with that of the broad ligament. It was smooth, and elastic to the touch, yet fluctuation could be distinctly perceived, but not so plainly as is usual in abdominal dropsies. When removed from its attachments it weighed seventy-six ounces and a half, and when incised about a pint and a half of grumous fluid escaped.

The walls of the tumour, for about four inches contiguous to the point of attachment, were about seven lines in thickness, and much denser and more unyielding to pressure than elsewhere. At this part in colour and firmness it much resembled the substance of a healthy liver; shading off from this circumscribed, dense portion, the walls became thinner, softer, and of a lighter hue, with occasional meshes of imperfectly organized bands, reaching across to the opposite

walls. The inner surface throughout was very irregular, soft, pulpy, and tearing very easily; here and there a small cyst might be observed, filled with fluid of a port-wine colour.

There was much grumous fluid filling up the interstices of this soft and loose tissue. The fluid was of a reddish-pink colour, and resembled cocoa mixed with water, to which very little milk has been added.

This tumour might be multilocular in its origin, but in its subsequent development most of the cysts were broken down, and their fluid contents retained within its enclosing walls. If such were its origin, it had undergone considerable transition and degeneration during its subsequent development.

I had the pleasure of showing this tumour to Mr. Bloxam, who was greatly interested in the case from the fact of the tumour occurring in so young a subject.

It is worthy of observation in accounting for the death of this girl, that in dissecting the round ligament to its expansion into fascia over the pubic region inferiorly, I observed the oblique muscles to be not only thicker than usual, but the fibres were coarser than in any subject I ever remember to have dissected.

The cause of death in this case was evidently asphyxia, arising from the unyielding nature of the abdominal walls, not allowing the tumour to present itself anteriorly more prominently, and, consequently, the pressure, taking the line of least resistance, was directed upwards towards a very enlarged liver, through the medium of impacted intestines.

AN INQUIRY

INTO THE

CORRECTNESS OF THE DOCTRINE OF WILLIAM HUNTER

IN REGARD TO

RETROVERSION OR RETROFLEXION OF THE GRAVID UTERUS.

BY

W. TYLER SMITH, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; PHYSICIAN-ACCOUCHEUR TO ST. MARY'S HOSPITAL; EXAMINER IN MIDWIFERY IN THE UNIVERSITY OF LONDON; ETC.

Read November 7th, 1860.

Retroversion of the gravid uterus appears to have been known to Hippocrates. It is referred to by the father of physic, as well as by several other ancient authors, who describe a mode of relieving it by passing two fingers into the rectum, shifting the fundus uteri into its place. With the decline of learning this affection appears to have been forgotten, and it was not until towards the middle of the last century that this displacement was accurately described anew by Gregoire, professor of midwifery in Paris, in his unpublished lectures. It is, however, to Dr. William Hunter that we owe, in this country, our knowledge of retroversion. It is to him that we are indebted for the use of the term "retroversion," previous authors having treated of this condition as an "inversion" of the uterus.

In October, 1754, William Hunter delivered a public lecture on a case of retroversion which occurred in a young woman four months pregnant, to whom he had been called by Mr. Walter Wall, a former pupil of Gregoire, and which terminated fatally by rupture of the bladder, notwith-

standing all their efforts to replace the uterus. The parts were examined after death, and formed the subjects of the four figures in plate xxvi of the great work on the 'Gravid Uterus.' In the same year, William Hunter made a communication on the retroverted uterus to the Royal Society. Much attention was directed to the matter from the fact that, within a space of two years, two other pregnant women were known to have died from this cause in London, without the discovery of its real nature until after death. Even the accurate Smellie, who was also a pupil of Gregoire, appears to have seen retroversion of the gravid uterus without recognising its nature. At this time, William Hunter confined himself to a detail of the facts of the case which came under his observation, but did not attempt any explanation of the causes which had produced the displacement.

In 1776, or twenty-two years later, William Hunter published a paper in the fifth volume of 'Medical Observations and Inquiries,' by a Society of Physicians in London, in which he gives his matured views as to the nature and causes of the retroverted uterus. Considerable confusion and misapprehension of his opinions have arisen from the fact that an outline of his early lecture is contained in the fourth volume of the same series, and subsequent writers have sometimes referred to the fourth volume, and overlooked the essay in the fifth, which is the most important. In the latter he observes that the growing bulk of the uterus in the early months naturally tends to produce frequent micturition and dysuria, and that the particular form of the pelvis may contribute to the retroversion. The pelvis which he considers most likely to favour this displacement is the combination of width at the outlet with narrowness at the brim, and he imagines that corpulent women will seldom or never have retroversion. I now proceed to quote his own words, as to the mode in which he supposed the full displacement to be reached.

"When the lower part of the pelvis is very capacious, and especially when there is little adeps to fill it up, the

enlarged uterus, in the second and third months, will occupy the lower part principally of such a pelvis; it will press more upon the meatus urinæ than upon the upper part of the bladder, and thereby dispose the patient more to dysury and suppression. In consequence of the last, she will have more frequent calls, and urgent bearings downwards.

"In this state, the complaint will take a very different turn in different cases, as the influence of various causes, singly or in co-operation, may happen to direct.

"If the causes of the complaint exist in a less degree, which is most commonly the case, especially when accompanied with favorable postures and motions of the body, and if the patient takes pains to keep the bladder tolerably empty, nature will recover herself and go on in her usual course.

"But when the contraries happen, the uterus, increasing daily in bulk, will at length be so jammed in the pelvis as to bring the patient into a very painful and hazardous situation, being kept down by the distended bladder, which rises over it, and urged frequently and powerfully downwards by the efforts of the patient, it is pressed against the parietes, and especially the lower parts of the pelvis. Where those parietes are bony, it is restrained to the cavity of the pelvis, but where fleshy and yielding, it swells outwards, and forms projections, which fix it almost immoveably in that situation. In this distressing state the uterus may be —1, fully retroverted; or 2, half retroverted; or 3, so far in its natural state that the orifice of the uterus shall be downwards.

"One of the most usual causes of full retroversion, we may suppose, is the distension of the bladder, which, as it rises upwards into the abdomen, where it has room to expand, naturally tends to drag along with itself the cervix uteri and adjacent part of the uterus to which it is fixed. Thus the full retroversion will be produced."—Vol. v, pp. 389—391.

Where similar causes exist in diminished degree, the retroversion will, he considers, be partial, while in others

there will be simply pressure of the uterus downwards, so as to cause procidentia.

Thus, according to the doctrine of William Hunter, a pelvis large inferiorly and contracted above, with the natural growth of the uterus in early gestation, were the predisposing causes, but retention of the urine and distension of the bladder was the great exciting cause of full and complete retroversion.

In fatal cases, the result was so commonly referable to rupture of the bladder, that it seemed natural to attribute great importance to the retention of urine which led to this accident; and the authority of William Hunter was so great, that his explanations met with almost universal acceptance. Denman, coming immediately after him, felt so sure of their correctness, that he thought it would be absurd to argue the matter. The following quotations from the works of living authors will show that they have continued almost unquestioned to the present time, and that no reinvestigation of the subject has ever taken place.

Dr. Ramsbotham, treating of retroversion, observes—"There is only one period of pregnancy at which this occurrence can take place, namely, just about the time when the uterus is rising out of the pelvis to become an abdominal viscus, its fundus peeping up above the brim, and this is usually between the third and fourth month; but it is in some degree regulated by the size the organ has acquired at this particular time, and also by the capacity of the pelvis itself."

"There are two varieties of retroversion—complete, when the fundus is thrown downwards and backwards into the cavity of the sacrum; partial, when the organ lies across the short diameter of the brim, its fundus resting upon the promontory of that bone."

"The cause of this accident is most frequently, if not always, to be traced to an over-distended bladder, and the history of it is of this kind—the woman has been, from some circumstance, unable to pass her urine for a considerable time; she has probably been engaged in society, in a

state of some restraint, and the bladder therefore has become more than ordinarily full. As the necks of the bladder and of the uterus are so intimately connected together by cellular substance, and as the bladder is so distensible an organ that it will contain many pints of fluid, it must be evident that the more it is filled, and the higher it rises into the abdomen, the higher it also draws with it the uterine mouth. In this way the neck of the womb is raised upwards and forwards, and the fundus proportionally directed backwards, partly by the mouth being elevated, and partly by the full bladder pressing on its anterior face. Under this state of things, if the woman's person be subjected to any sudden exertion, the abdominal muscles, acting powerfully, compress the bladder, an impetus is propagated to the rising uterus, and the jerk causes the fundus to fall backwards and downwards." Dr. Ramsbotham coincides with William Hunter in the supposition that a pelvis large below and contracted above will predispose the subject of it to retroversion.

Dr. Robert Lee simply endorses the opinions of William Hunter. He states—"Retroversion of the gravid uterus is a consequence of an undue accumulation of urine in the bladder, and, by pressing on the neck of the bladder, the retroverted uterus is a cause of retention of urine. The efforts made to empty the bladder probably contribute to produce the effect. It is an accident which generally occurs before the end of the fourth month of pregnancy; but some believe, where the pelvis is very capacious, that it may take place as late as the sixth or seventh month."

Dr. Meigs, of Philadelphia, in treating of the retroverted gravid uterus, observes—"Considering that the antero-posterior diameter of the pelvic excavation is equal to four and a half inches, it is reasonable to suppose that the unimpregnated womb cannot readily be caught under the projection of the sacrum, even if it be liable to be thrown backwards under that promontory. Yet the unimpregnated uterus is liable to be turned over, or retroverted, and retained in that false position, until the reposition of it be effected

by a skilful hand. The womb is about three inches long, but as the vagina is attached by the recto-vaginal septum to the gut behind, it appears that if the fundus uteri should be caught in retroversion below the promontory of the sacrum, it might readily remain there, until, as above said, it should be reposited by the hand of the attendant. There is no reason to doubt that the uterus is frequently turned over backwards, but not retained; for the urinary bladder, when very full of water, extends backwards and downwards, pushing the top of the womb along with it. If this happen to a woman about two and a half or three months gone with child, she will scarcely fail to have a serious retroversis uteri."

Dr. Rigby is almost the only contemporary writer who does not give the first place to distension of the bladder as a cause of retroversion. He remarks—"In every case which has come under our own observation, the bladder has not been distended until the retroversion had taken place, in consequence of which the os and cervix uteri had been tilted up behind the symphisis pubis, and having thus compressed its neck, had caused the difficulty in passing water. Whenever any force is applied to the fundus uteri at this period of pregnancy (the early months), either from external violence or the action of the abdominal muscles pressing the intestines and bladder against it, it will be pushed against the rectum, in which case the rectum will be flattened at that part against which the fundus rests; and if any mass of feculent matter be passed along the intestine, its course will be obstructed at this point, and the rectum quickly become distended with an accumulation of fæces above, by which means the fundus will not only be prevented from rising, but in all probability be forced still lower down. If the force which has originally pushed the fundus backwards be of sufficient degree and duration to carry it past the promontory of the sacrum, the increase of space which it will meet with in the hollow of the sacrum, and the straining efforts which are induced by the displacement itself, contribute powerfully to complete the mischief, and to bring the

fundus so low into the pelvic cavity as at length to turn it nearly upside down.

Professor Simpson, to whom we owe nearly all that is at present known respecting retroversion of the unimpregnated uterus, has not, I believe, treated of the same displacement in the gravid organ. The only passage in which I am aware that he indirectly refers to it is the following:

"When a patient with a retroverted uterus becomes pregnant, abortion is apt to take place. But I have seen various instances in which the uterus became spontaneously rectified in position as it became larger, and utero-gestation went on to the full time. Usually the existence of retroversion interferes with the function of conception. Often it is a cause of sterility, as shown by impregnation taking place after the displacement is rectified. In women who have borne children at distances of several years between each, I have several times found the uterus permanently retroverted in the unimpregnated state.

The preceding quotations show the general tendency among obstetricians to receive the doctrines of William Hunter on the subject of retroversion. Their most strenuous advocates have, however, noticed some facts which militate against them. Such, for instance, is the occurrence of retroversion in the same subject in successive pregnancies, the known existence and continuance of retroversion of a complete kind, without any suppression of urine, or dysuria, and its gradual appearance in some cases without any affection of the bladder.

My own attention became specially directed to the subject of retroversion of the gravid uterus in the following manner. I attended a lady, a patient of Sir Ronald Martin, who, in the unimpregnated state, suffered from complete retroversion or retroflexion. She left this country, with the uterus retroverted, to join her husband in India. She soon became pregnant, and went the full time. The question suggested itself to me—what was the condition of the uterus in this case, after impregnation occurred? and I resolved to take any opportunities which might occur to me

of answering it. I have now seen a considerable number of cases in which the retroverted uterus has become impregnated, and have carefully watched the progress of gestation under these circumstances. The result has been a conviction that the most common cause of retroversion of the gravid uterus is not to be found in the state of the pelvis or the condition of the bladder, but in the occurrence of impregnation in the retroverted uterus, and in the tendency of the organ thus impregnated to grow and develop itself during the early months of pregnancy, in the retroverted or retroflexed position. When an ovum is deposited in the retroverted uterus, the enlargement of the organ causes a greater sense of weight and pressure in the pelvis than ordinary pregnancy. The os uteri approaches the pubis, and the fundus projects towards the hollow of the sacrum. The fundus is found to enlarge considerably when examined from time to time by the finger. At length, unless the pelvis is of very large size, the bladder and rectum are pressed upon so as to interfere with their functions, and difficult micturition and defecation, especially the former, are the results. Owing to the retention of the gravid uterus within the pelvis, there is little or no increase in the size of the abdomen. There is usually a great amount of pain and discomfort in the lower part of the back, and the sympathetic affections of pregnancy are frequently more severe than usual. Abortion very frequently occurs from the mechanical irritation of the uterus. The difficulty is at its height about the end of the fourth month, or towards the middle of gestation. Either complete retroversion, with its attendant symptoms, occur at or before these dates, or the fundus uteri lifts itself above the promontory of the sacrum, the abdomen suddenly increases in size, and the patient is free from her unusual symptoms. The conditions which tend to increase the retroversion, and to produce strangulation of the organ in the pelvis, are the efforts of bearing down, straining at defecation, the accumulation of fæcal matter above the fundus uteri, distension of the urinary bladder, resting on the back (the position advised by William Hunter),

and contraction at the pelvic brim, especially by prominence of the lumbo-sacral angle. On the other hand, the conditions which favour the natural resolution of the retroversion, and the ascent of the uterus, are the growth of the uterus, and its upward tendency, even in the retroverted state; lying on the side or on the face in the horizontal position, when gravitation assists in drawing the uterus out of the pelvis; accumulations of fæcal matter in the rectum below the fundus uteri; and probably the early movements of the uterus and of the fœtus. Of the latter agencies, growth appears to me the most important. As the retroverted uterus enlarges, it is necessarily extended upwards. It cannot sink through the floor of the pelvis, but the convexity of the organ ascends slowly above the plane of the brim. The tendency of growth is to render the axis of the uterus straight, and at length the fundus escapes somewhat after the manner of a bent bow above the promontory, when gestation proceeds in the natural manner. The favorable termination, where pregnancy proceeds without abortion, is the common one; and from this circumstance, no doubt, many cases of retroversion in the early months are never suspected. No doubt one of the most important phenomena of complete retroversion is the distended bladder. As a primary cause of retroversion, it is of little consequence.

The suppression of urine I believe to be invariably caused by the pressure of the neck of the retroverted organ upon the meatus. When the suppression has been produced, the distended bladder rises high in the abdomen, and drags the os and cervix uteri upwards, so that they can scarcely be felt by a digital examination. This increases the strangulation of the uterus in the pelvis, and tilts the fundus downwards. The fundus uteri is, however, quite removed out of the way of any direct pressure by the distended bladder. It appears to me that the enlargement of the bladder, which sometimes reaches as high as the ensiform cartilage, is not merely a distension occurring suddenly, but is somewhat in the nature of a development or growth of the bladder, consequent upon its habitually loaded state for many days, and even weeks,

before the point of strangulation is reached. When, at length, rupture takes place, it depends on distension, combined with the disease of the mucous membrane, caused by retained urine. I do not mean to assert that other causes, such as mechanical injuries, strains, prolapsus, and procidentia, pelvic cicatrizations and deformities, may not retrovert the gravid uterus, but I repeat that what I wish to maintain is, that the impregnation and development of the uterus previously retroverted is the common and ordinary way in which gravid retroversion is produced; that it does not occur suddenly, except in very rare and exceptional cases, but is the result of the gradual and progressive increase of the retroflexed or retroverted uterus after conception.

I may be allowed to state that I have taught this in my lectures for several years past, and published an outline of it in 1856. I am not aware that any similar views have been published; but on speaking of the matter some time ago to Dr. Oldham, he informed me that he had arrived at the same conclusion, from his own observations, and had taught it in his class. The following are some of the cases I have observed, and which form the groundwork of the present paper.

Case 1.—In 1854, I was asked by Dr. Russell to see a lady suffering from anomalous symptoms, in whom a suspicion of pregnancy existed. She had been married two years, and, on a former occasion, the catamenia were suspended for two months, followed by a considerable loss. Abortion was thought to have occurred, but the matter was not positively determined. When I saw her, she complained of acute pain in the lower part of the back, inability to walk more than a few steps, and constant irritability of the bladder, with distress in passing water. The catamenia had continued regular, and there had been occasional hæmoptysis. On examination, I found the uterus retroverted, with the fundus considerably larger than natural. It gave the impression of being the size belonging to preg-

nancy between two and three months. I concluded that it was a case of gravid retroversion. The patient was of a very tall figure, with a pelvis rather below the natural size, but without deformity. The retroverted uterus was not of sufficient bulk to press to any considerable extent upon the bladder. It could be moved upwards by the finger, but soon returned to the retroverted position. I watched this case carefully, and found the fundus gradually increase, until very great pressure came to be exerted upon the bladder and rectum. Abortion, or strangulation of the retroverted uterus, appeared imminent on several occasions. By keeping her on a sofa, lying on one side or in the prone position, directing the bladder to be frequently emptied, and keeping the bowels moved by gentle laxatives, she, however, went on, without the positive necessity for mechanical interference, until she had passed the fourth month, when the fundus rose suddenly above the brim. She was at once much relieved. The abdomen enlarged, its previous smallness having made her disbelieve in the possibility of pregnancy, and she was delivered, a little before the full term, of a son, now living. She was kept, as much as possible, in the prone position after delivery, but the uterus returned to the retroverted state, and the vagina was too irritable to allow of her using mechanical supports for any length of time. The catamenia were afterwards irregular, and she had, occasionally, vicarious hæmoptysis. On two subsequent occasions this patient became pregnant. Each time the retroversion was most distinct, and the uterus enlarged in the retroverted condition. There were the same pelvic symptoms, but they were, on both occasions, cut short by abortion at about the third month. She could not again be brought to take the same absolute rest which we had enjoined on the first occasion. The uterus still remains retroverted.

Case 2.—In 1855, I was consulted by a lady who had a very complete retroversion of the unimpregnated uterus. She had given birth to several living children, and, a few

months before I saw her, had aborted at about the third month. The os uteri was in a very unhealthy condition, and purulent leucorrhœa, with menorrhagia, existed to a considerable extent. I prescribed tonics, with astringent injections and rest, and she returned to the country. In the following year she consulted me again, having missed a monthly period, and suffering from severe sacral pain and bearing down. I found the uterus still retroverted, and sufficiently enlarged to leave little doubt of pregnancy. I saw this patient several times, and observed the gradual increase of the uterus in its retroverted position, and its accompanying symptoms. She was kept, as far as possible, in the prone position, and the bladder and bowels carefully attended to; but, in spite of these precautions, she was seized with violent pain, and aborted at the fourth month. The abortion appeared to save the uterus from strangulation. After this the retroversion was remedied, and an air-pessary worn for several months, when the displacement appeared to be cured. She again became pregnant, and I saw her soon after this was suspected. I found the uterus again retroverted, and gestation went on in the retroverted position, till it terminated in abortion, at the third month. She now wore an air-pessary for a longer period, and in June last she paid me a visit, on account of the suspicion of pregnancy. This time there was no retroversion, and she has now passed the sixth month without accident.

Case 3.—I was consulted in August, 1859, by a lady, a patient of Dr. Duigan, of Gainsborough. She was the mother of two children, and, in the previous May, had a miscarriage, which left her in a very weak state. She had lost blood largely, and had since been irregular at the periods. Her chief complaint was of a distressing pain at the bottom of the back, and the least attempt at walking or exertion produced faintness. On making a digital examination, the uterus was found to be retroverted, the fundus hanging upon the lower part of the rectum, and so enlarged as to make me believe that pregnancy existed. She remained in town about a

month, and the increase in the size of the uterus in this time converted the belief into certainty. There is no other condition in which the increase of the gravid uterus in the early months can be so readily estimated as in retroversion. The globular fundus is so perfectly within reach of the finger as to render it possible to measure its increase with a precision which cannot be obtained when the uterus is in its natural position. In this case, the fundus could be lifted from the rectum, so as to afford temporary relief, but it would soon return to the position of retroversion. Acting on this hint, I introduced an air-pessary of considerable size, which gave great relief and enabled her to walk and move about to an extent which had previously been impossible. With the air-pessary the uterus remained in a state of semi-retroversion. She continued to wear the instrument, with great comfort, for upwards of two months, and only left it off when quickening, and the movements of the child made it certain that the uterus had risen out of the pelvis. She was delivered in April last of a living child, and carefully rested after her confinement, lying, as much as possible, in the prone position. In this case, the pelvis was of large size, and it is the only instance I have seen of persistent retroversion in the gravid state, in which there was no vesical symptom whatever. I have seen this patient twice since her delivery. The first time there was no sign of retroversion, but the second it had returned to some extent, and I advised the use of the air-pessary again.

Case 4.—In July of the present year I saw, with Dr. Billing, a patient who had borne several living children, but who, since the birth of her last living child, had repeatedly miscarried in the early months. Examining, I found the uterus completely retroverted, and, as far as I could judge, containing an ovum of seven or eight weeks. She complained of severe pain in the back, rendering her unable to walk, and of considerable pressure on the bladder and rectum. These symptoms had, in former pregnancies, gone on increasing until miscarriage took place. The displace-

ment was explained to her, and she was advised to rest daily, as nearly as possible in the prone position, to attend carefully to the state of the bladder and bowels, and to obtain immediate assistance in the event of any symptoms of strangulation. In October she again called upon me. Quickening had occurred the month before, and, previous to this, she had been aware of the ascent of the womb, the axis of which was now in the normal direction. In this case, the retroversion had probably existed in former pregnancies, and produced abortion. The tendency to miscarriage is so strong in cases of retroversion, that I have little doubt some of the cases of habitual abortion met with in practice depend on this cause.

Case 5.—A lady, who had been married six years, the mother of two children, was sent to be under my care by Dr. Goodeve, of Calcutta, in the autumn of 1857. She had been in India six years, and had suffered from dysentery in her third pregnancy, which ended in abortion. After this, she complained of leucorrhœa, pain in the back, inability to walk, and other symptoms of uterine disorder. Her general health failed greatly, and the frequent occurrence of hæmoptysis caused a good deal of anxiety about the state of her lungs. I met Mr. Jackson, of Notting Hill, when I first saw the case, and we ascertained the uterus to be large, and completely retroverted. Menstruation had, for some time, been very irregular. She spat blood daily, and had a constant, harassing cough, night sweats, and quick pulse. Still there were no auscultatory signs of tubercular disease. For the relief of the retroversion, which completely disabled her from walking, an air-pessary was introduced into the vagina, and worn almost constantly, with good effect. She spent the winter at Brighton, with much benefit to her general health, and was able, after a time, to do without the pessary. In the following summer her husband returned from India, and in the autumn I was requested to see her again, on account of an aggravation of the symptoms from which she had formerly suffered. She now had dysentery, frequently

passing from ten to fifteen stools a day, consisting chiefly of mucus stained with blood. There was frequent and irrepressible vomiting after taking food. There was also a daily discharge of blood from the uterus, and the cough and hæmoptysis continued. For three months there was scarcely a day in which she did not suffer from vomiting, purging, hæmoptysis, and menorrhagia. Fortunately, she had a great tolerance of opium, otherwise she could not possibly have lived. When this illness began, I found the uterus retroverted, and slightly enlarged. Finding that it increased in size, I soon had no doubt of the existence of pregnancy, and that this was the cause of her extraordinary symptoms. The local symptoms were very severe, and she sometimes experienced temporary relief from the air-pessary, but the retroversion could not be entirely reduced. If the fundus uteri were pushed up, it soon fell again into the hollow of the sacrum. Between the third and fourth month, she was taken to Brighton, where she was under the care of Mr. Bacon Phillips, who had had charge of her the year before. At this time, although the pelvis was roomy, there was much pressure upon the bowels and bladder, especially the latter. Care was taken to keep these viscera as empty as possible, and she lay chiefly in the prone position. During this time the abdomen was scarcely, if at all, increased in size. The symptoms produced by the uterus were occasionally very urgent, and on one occasion Mr. Phillips communicated to me that abortion was actually taking place. At length, about the fifth month, the local symptoms were suddenly relieved, and the uterine tumour appeared in the hypogastrium. On examination, there was now no trace of retroversion. She went the full term, and I delivered her of a very small, but healthy, female child, in March, 1859, who is now living.

In February last I was called to see the same patient, by Mr. Clark, of Twickenham, and found her suffering in much the same way as in the autumn of 1858. She now thought it impossible that pregnancy could exist, but, as before, the uterus was retroverted and enlarged, and I expressed my

belief that she was pregnant. In March I visited her again, and as the uterus had now increased, my opinion was confirmed. In June, she called upon me, being then five months pregnant; I found the uterus still retroverted, the fundus large, and the pelvic pressure very great. She continued to doubt the fact of pregnancy, from the absence of all abdominal tumour. I heard, subsequently, that the uterus had shortly afterwards ascended, and that pregnancy was going on naturally.

In conclusion, I may observe that it seems to me the great use of the knowledge of the mode in which retroversion of the gravid uterus occurs will be in the prevention of the full retroversion, or strangulation, as I have ventured to term it, of the gravid uterus in the pelvis. As long as retroversion was supposed to take place suddenly and mysteriously, little could be done to avert it; but if, as I believe, the displacement dates from the very beginning of pregnancy, in the great majority of cases, we may do much by position and attention to the bowels and bladder, to prevent any dangerous symptoms; and, aware of the condition of the uterus beforehand, we shall be more ready to give prompt mechanical assistance when it becomes necessary to pass the hand into the vagina to carry the fundus above the brim.

When retroversion has existed in early pregnancy, but has been relieved spontaneously, or otherwise, by the ascent of the fundus, labour takes place without any unusual difficulty. We ought, however, in the management of the puerperal state, to endeavour to prevent a return of the uterine displacement. The occurrence of pregnancy is rather favorable than otherwise to the cure of retroversion. In the latter months of pregnancy the fœtus acts as an intra-uterine pessary, the organ is strengthened, and in the return of the uterus to the size of the unimpregnated state, by the process of involution, we have a better chance of curing retroversion than under any other circumstances. The abdominal bandage should not be tight enough to force the uterus into the pelvis; the patient should be encouraged to lie on her

right or left side, inclining to the prone position, but avoiding recumbency. The bladder should be frequently relieved, and any violent straining during defecation avoided. She should remain in bed, or on a couch, longer than usual; and before resuming her ordinary duties the condition of the uterus should be ascertained, and if any tendency to a return of retroversion exists, an air-pessary should be worn in the vagina as long as may be necessary to ensure a right position to the uterus.

Several other cases of retroversion of the unimpregnated uterus, followed by retroversion in the gravid state, have fallen under my observation besides those related in the present paper, but as they would only be a repetition of those already detailed, I will not trouble the Society with the particulars of them. What has happened in my own practice must necessarily have occurred in that of others, and probably it is only necessary that the matter should be understood for the production of a number of well-authenticated cases of the same kind by those engaged in obstetric practice. I must now leave it to the Society to decide whether the facts and observations which have been adduced do not prove that the Hunterian theory of gravid retroversion is no longer tenable, and whether we must not, in future, look upon retroversion of the unimpregnated state, which is well known to be a common affection, frequently admitting of impregnation, as the principal cause of retroversion of the gravid organ. In raising this discussion, I would yield to no one in veneration for the name of William Hunter, as being undoubtedly one of the greatest and most honoured names in obstetric science.

ON A CASE

OF

SPONTANEOUS EVOLUTION OF THE FŒTUS IN UTERO,

THE HEAD CHANGED FOR THE FEET.

BY

RICHARD HODGES, M.D., F.R.C.S.

Read November 7th, 1860.

The spontaneous turning of the child in the womb, occurring, as it does, so rarely, cannot but be regarded by the obstetrician with interest. The following particulars of a case which occurred to me some time ago are, therefore, sent as an illustration of the actual turning of a child while in utero, the presentation of the head being changed for the feet. A lady in her first labour required my attention. On examination, the os uteri was dilated to the size of a half-crown, the liquor amnii had escaped, and the presentation was natural, the head being clearly and distinctly perceived by an examination, instituted with care, on account of the anxiety of relatives to know the presentation. The head was distinctly recognised by its hard, round, and unyielding nature, and by the hair on the scalp, and no other part could be felt in any direction. The pains continuing, after an interval another examination was made, when, to my surprise, both feet were found in the upper part of the vagina, just through the os uteri, convincing me that the child had actually revolved within the uterus; the muscular force of which so acting on its upper or breech end as to depress and change it to the position I found it in on the second examination, and the head, or original presenting part, receding *pari passu* with the advancement of the feet into

the vagina. The head of the child had never at any time passed through the brim of the pelvis, but yet, nevertheless, was so within reach as to be distinctly and clearly made out; and it is probable that it might have been pressed forward by the pains against the pubis, which, acting as a resisting point, enabled the uterus to exert its force on the other part of the fœtus, so as to occasion its actual revolution.

SPECIMEN

OF THE

EFFECTS OF RECKLESS VACCINATION.

BY

ROBERT DRUITT, M.R.C.P., &c.

Read December 5th, 1860.

THE drawings which I lay before the Society exhibit the happily rare effects of vaccination, performed, as I think, in

a needlessly severe manner. A healthy infant was vaccinated with lymph brought to the house on points; not taken directly from the arm. This practice is unavoidable in remote country districts, but is scarcely excusable in London. The operation was effected by making a series of parallel scratches, close together, and covering a space one inch by three quarters. The arm inflamed severely; swelled from

shoulder to elbow; and numerous small vesications appeared on the inflamed skin. The part actually operated on sloughed entirely, leaving a very deep and ugly cicatrix.

Vaccination has sometimes been recommended for the destruction of nævi; and it will be seen, from this specimen, that it is quite capable of causing the whole thickness of skin to slough.

The constitutional effects of syphilis are said to be materially modified by sloughing of the primary sore; it is a question whether those of vaccination suffer any diminution by the entire destruction and separation of the injured part.

CASE

OF

ABNORMAL GESTATION.

BY

ROBERT HARDEY, M.R.C.S.E., &c.

Read December 5th, 1860.

On February 17th, 1860, I was desired to visit Mrs. C—, of Porter Street, in this town, ——, for the relief of violent abdominal pains. I found her a healthy-looking young person, of twenty-two years of age, and (as I then understood her) in the seventh month of her first gestation. She had been married a little over two years. The pain complained of was on the left side of the abdomen, and shooting down towards the pubis. Being below stairs, fully dressed, and without vaginal discharge, I contented myself with prescribing a saline mixture, c. Liq. Opii sed., every four hours, taking the case to be one of fatigued uterus. I also ordered a dose of Ol. Ricini next morning. The patient to retain the recumbent position.

18th.—Found the pain nearly removed, and the oil had acted well. Ordered the mixture to be continued three times a day.

19th.—Still further relieved from pain. Ordered her an occasional dose of oil, and enforced perfect quiescence.

21st.—Since my last visit the pains have returned with great severity, and I find she has fainted suddenly, several times, remaining from fifteen to twenty minutes totally unconscious. I now made a careful examination of the patient, both per vaginam and externally. The uterus was found situated high up, its cervix a full inch or more in length, conical, tapering off to the os, which was unusually pointed,

and in contact with the sacrum. The inferior segment of the uterus was quite undeveloped, and from this aspect the uterus itself appeared entirely void of contents. The patient lying on her back, with her thighs bent at right angles with the abdomen; the latter was found considerably enlarged, chiefly on the left side of the mesial line. On a more careful manipulation, a large, oblong tumour was discovered, situated in, and extending obliquely upwards from, the left hypogastrium to the crista ilii of the same side. All her pain was in this situation, and did not extend across the pubis.

She informed me she had menstruated first in her fifteenth year, and had remained quite "regular" ever since, menstruating, for the last time, about the middle of July, 1859.

Subsequently to this last monthly period, symptoms of gestation early followed, and seem to have been of a more severe character than usual. She had always some abdominal uneasiness, occasionally it amounted to severe pain. It was situated in the left hypogastrium, and was particularly bad after unusual exertion. She had noticed that her body enlarged chiefly on the left side, but it had latterly extended across, towards the opposite side.

The faintings recently experienced she attributed to the pain induced by fœtal movements. I prescribed a mixture composed of Æther. Chloric. Liq. Opii sed., and Mist. Camphoræ, ordering her to take a tablespoonful when faint, or full of pain; and to use hot, dry applications to the pained abdominal region.

22d.—Symptoms much as yesterday. Ordered the continuance of the mixture, with strong Anod. Haust. H.S.S.

23d.—Symptoms as before. Mixture to be repeated. Also ordered some active aperient pills; one every other night.

24th.—Still no substantial relief. Pains in same locality, and has had frequent syncope; has been in bed ever since the 21st. On vaginal examination the os, cervix, and inferior segment of the uterus, were found precisely as at last examination.

On the 25th and 27th, the symptoms as before; and the same also of the uterine conditions.

28th.—The symptoms were greatly relieved. Continue the use of the anodyne mixture. I promised a visit in three or four days.

On March 3d I called, and found her in bed, where she had remained since my last visit. Faintings less frequent; the pain on the left side, however, had been constant, and had now occasional exacerbations. Examination per vaginam discovered no alterations since last visit, but there was present considerable vaginal moisture, of a thin, colourless character.[1] Had not felt any fœtal movements for several days. She is taking her aperient pills occasionally, also her mixture, which always gives temporary relief.

6th.—Found the abdominal pains rather increased, and extending across the pubis; the exacerbations more severe, and of somewhat expulsive character. On the advent of one of these pains, the abdominal tumour became distinctly defined and hard; it extended from the pubis obliquely upwards and outwards, and ended by a rounded margin within the left hypochondrium. It did not cross into the right hypogastrium. Matters per vaginam in *statu quo*. Ordered her anodyne mixture to be continued, increasing the dose considerably.

From my first attendance, I had entertained strong suspicions that the case was one of extra-uterine fœtation, and my present examination confirmed me pretty fully in this conviction. From the extension of the tumour quite to the symphisis pubis, its form and inclination, with the entire absence of uterine hæmorrhage, I judged the case was one of tubal, or it might be of ventral character.

Having to leave home for two days the patient was visited, on the evening of the 8th, by my friend, Mr. Locking, in consequence of the aggravated character of her pains. He prescribed a strong anodyne draught. I returned home at 10 p.m., same night; and, at 1 o'clock next morning, was called to visit her, the draught having failed to give relief.

[1] Probably the liq. amnii, but not so considered at the time.

I now found the pains to be of a decidedly parturient nature, I therefore made a very careful examination, per vaginam, and found the same long, conical, cervix uteri, the same pointed and closed os uteri, and the same undeveloped condition of the inferior segment as at my first examination. There was, in fact, so far as could be ascertained from the vagina, no uterine enlargement. During the pains, which now returned every eight minutes, the tumour became very hard; its oblong character and direction were precisely the same as at last examination, but there was now discovered a narrowed part crossing the tumour, about an inch and a half in breadth, and two thirds downward from its summit. I remained two hours with the patient, giving her, first, thirty drops of laudanum, and twenty more in an hour afterwards; leaving twenty more to be administered two hours after my leaving her.

Same day, at 2·30 p.m., I called again, and found the pains continued, but had greatly abated in violence and frequency. Being laid with her face to the front of the bed, and a friend behind her, fast asleep, I did not make a vaginal examination, but ordered her hot fomentations to the abdomen, and a strong anodyne mixture; dose to be repeated every three hours.

Near midnight her mother called on me, stating her pains were again worse, and wishing me to send her some laudanum, as her mixture made her sick. I did so, ordering twenty drops every second hour, till her pains should be alleviated.

Next morning, at near 5 o'clock (10th), the mother desired my attendance, in great haste, stating, to my no small astonishment, that "the infant was partly born." I hastened forward, and found, on arrival, that a neighbour had drawn away a fœtus, which, she stated, had come double, and was nearly born when she arrived; the placenta had also been expelled (she said) naturally, just before I entered the house. The fœtus was of seven months' development, and had apparently been dead eight or ten days.

I learnt, on inquiry, that the pains had suddenly moved

into the back, between midnight and 1 a.m., and thenceforward, till the birth of the infant, had been almost constant; the birth occurred at 4·30 a.m. I learnt, further, that in order, if possible, to relieve the pains, the women present had diligently rubbed the tumour, pressing it, at the same time, towards the pubis; they had fully recognised the strictured part, and said that it disappeared about the same time that pain went into the back.

On examination, I found no hæmorrhage present, but the same long and conical cervix uteri as before, with its pointed os. There was this difference, however, in the parts, viz., there existed a lateral slit through the cervix quite up to the body of the uterus, as if it had been cut clean across with a knife. The uterus, in its abnormal position, was difficult of recognition, but, after some gentle kneading, I roused it into action, and found it occupying the left iliac region, and of the size of a small cocoa-nut. After the delivery the mother recovered speedily, and without the occurrence of one untoward symptom.

My patient's antecedents, so far as they affected her late untoward circumstances, only transpired at one of my post-partem visits. From a conversation then held I was surprised to find that the late gestation was not her first (as I had previously understood) but her third. It would seem that early after marriage she became *enceinte*. About the end of the third month of gestation, "a practical joke" was played her, in the removal of her chair, when sitting down; she fell suddenly to the floor, experienced a severe pain in her left groin, and aborted the next morning. She remained some days very ill; the pain in her groin continued more or less during several weeks, and it was three months before she fully recovered her health.

Soon after her recovery she became pregnant a second time, suffered considerable pain at times in the left side of the body, and again aborted at the end of the third month. Her third gestation, with its results, forms the subject of the present case.

Remarks.—Of the real nature of this deeply-interesting

and almost unique case, there exists, I think, but little doubt. Previous to the first abortion the gestation was proceeding in a perfectly normal manner. The symptoms of the second pregnancy were unnaturally severe, and local in their character, and terminated in early abortion. We have seen the same severity of symptoms attendant on the third gestation, which also ended prematurely, and under the extraordinary circumstances above narrated.

Is it not reasonable, then, to presume that at the period of her sudden fall there occurred to the woman some lesion in the peritoneal covering forming the left broad ligament, and extending to the uterus; that plastic effusion was the result; and, that this effused lymph becoming a firmly organized band of a comparatively inelastic nature, prevented the uterus rising upwards as gestation advanced; gave to it the direction on the left, and ultimately formed that stricture which divided the uterus into two chambers, and imprisoned the ovum in the upper one till within four hours of the delivery of the fœtus? Does not this firm band across the lower third of the uterus also account satisfactorily for the undeveloped condition of the lower third of that viscus, with its cervix and os, to the very last hours of utero-gestation? Undoubtedly it does.

The advent of labour at the close of the seventh month was evidently caused by the further expansion of the uterus becoming impossible, under the circumstances in which it was placed; its protraction during several days and its great severity being due to the same cause.

May not a perusal of the case just narrated teach us some practical lessons for future guidance; say—

1. As to the necessity of our being unusually searching in our inquiries into the previous history of the patient, where the symptoms of gestation are either abnormal or of unusual severity.

2. It may further certify us, that an undeveloped condition of the lower segment of the uterus, with its cervix and os, is not inconsistent, under certain peculiar circumstances, with advanced gestation.

3. That the class of symptoms usually considered indicative of extra-uterine fœtation are not always to be relied on as conclusive of that condition; and—

4. It may teach us caution in pronouncing any case as one of extra-uterine gestation, simply because of the presence of certain unusually severe or abnormal characteristics.[1]

[1] I may further enforce this caution by stating, that in or about the year 1850 I met with a case of primipara, in which the uterus was bound down to the right iliac region, and in which the symptoms of gestation throughout the pregnancy had been unusually urgent, frequently calling for local treatment by leeches, fomentations, &c., with saline aperients, sedatives internally, and the recumbent posture. The case was seen by a physician, who, like myself, concluded it was one of extra-uterine fœtation, and would probably prove fatal to the woman. About the end of the seventh month of gestation (the patient being in bed and asleep at the time) the uterus suddenly, and with great pain, broke away from its abnormal entanglements, and assumed the erect position. Henceforward the gestation proceeded normally, the woman was safely delivered at her full term, without anything unusual, and made a most satisfactory recovery.

ON

ASYMMETRICAL DISTORTION OF THE PELVIS,

THE RESULT OF UNEQUAL LENGTH OF THE LEGS.

BY

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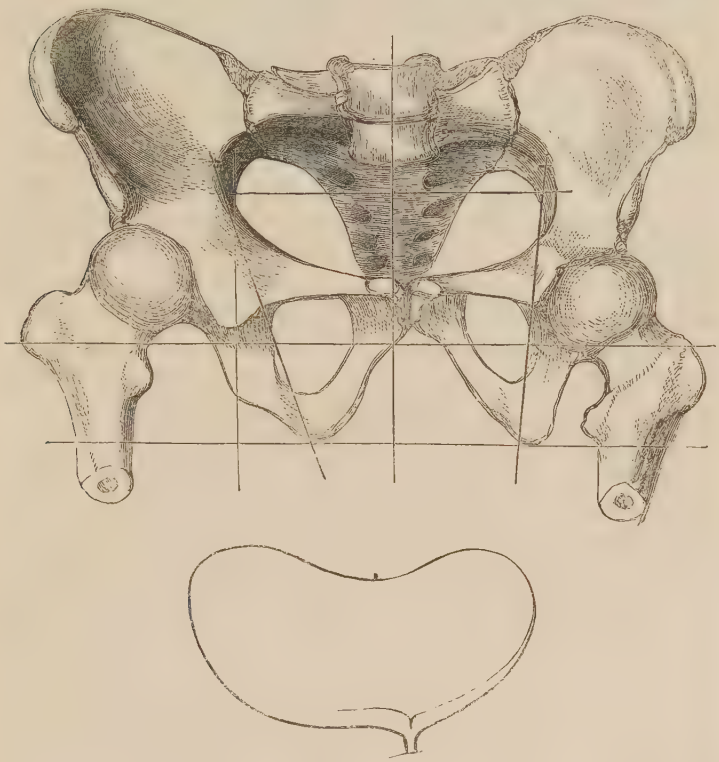
Read December 5th, 1860.

On the 12th of February, 1858, I was called by a midwife of the Royal Maternity Charity to see a woman, æt. 20, in labour with her first child. The membranes had ruptured on the previous day. Notwithstanding strong pains for some hours, there had been no progress; now, the pains were flagging. The patient has been lame in the left leg from the age of two years, when the ankle was broken; she is very short in stature. The pelvis is narrow in the pubic arch; the promontory projects, somewhat contracting the antero-posterior diameter; the pelvic brim is oblique-ovate, the symphysis being to the left of a perpendicular line drawn from the promontory. Head in first position, moveable, pains not causing it to descend into brim. The necessity for delivery being urgent, and the forceps appearing inapplicable, I lessened the head. The bones of the skull so easily broke up that it was difficult to keep sufficient hold with the crotchet. But when resistance was lessened the pains increased, and by their aid the head was extracted in an hour and a half. The uterus contracted well; there was no hæmorrhage. The patient was harassed for a while by bronchitis, but recovered favorably.

On the 9th of February, 1859, this woman, having neglected advice to present herself during gestation, was again in labour at term. She had been in strong pains for some



hours, without progress. When I saw her the pains were violent; she was extremely restless and excited. The head was at the brim, the vertex *apicifying*, but the base of the cone could by no means enter; the finger could not reach the ear. I judged it possible, since the bones seemed yielding and the head small, that the skull might be compressed sufficiently by forceps to bring it through. The child was still alive. I put the patient under the influence of chloroform, and applied the Dublin forceps in the left

oblique diameter. Strong tractile and compressive force, with gentle oscillation, were exerted during half an hour, when powerful pains recurring with the diminishing resistance, the head was delivered. The cord was twice round the neck; it was liberated by slipping over head. The shoulders could not be delivered without some extractive force. The placenta was cast in five minutes. The child, a male, was small, notably smaller than that of first labour, it was semi-asphyxiated, but friction of the chest and cold aspersion over distribution of respiratory nerves soon excited free respiration. The fenestræ of the forceps had strongly marked the head. The sacro-iliac blade had rested on the left forehead. The cotyloid or obturator blade had made a deep impression, slightly abrading the skin on the right occiput just behind the ear. The point of this blade took hold beyond the cranium, grasping the neck near the vessels, which narrowly escaped being compressed by it.

In such a case a short anterior blade, as used by my colleague, Dr. Hall Davis, would seem to offer a better security against this risk, but might not furnish an equally powerful compressing instrument.

I thought the chloroform had a good effect in moderating the excitement and agitation of the patient, which had, up to the time of giving it, been extreme. Violent mania broke out on the third day, marked by the use of obscene language and by great prostration. I had her removed to St. Luke's Hospital, where she remained under the care of Dr. Stevens for five weeks, and then was discharged quite well. She had suckled her child for two or three days before going to the hospital. The child had fits at five weeks whilst separated from its mother. On being restored to the breast the milk returned; the child had no more fits, and was thriving a year afterwards.

I had subsequently an opportunity of making a careful examination of the pelvis. The left leg was one inch shorter than the right. The pelvis, measured externally from middle of sacrum to symphysis, was fully one inch and a half larger on the right side. The right side of the brim

stood quite an inch higher than the left, and estimated by the finger internally was more spacious; for example, the ridge of the brim could be easily traced on the left side, and with difficulty reached on the right. The spinal column was slightly curved to the left.

This history presents several points of interest. There is the sequence of mania upon chloroform in the second labour. Was it one of cause and effect? There is the question whether the delivery in both the labours might not have been more properly terminated by turning? The first point I surrender as an open question. The second I should answer in the affirmative, if it be applied to a stage of labour anterior to that at which my assistance was called for. When I saw her the uterus had been too long acting with violence, and was too strongly contracted upon the child to render turning a safe or a hopeful proceeding.

The immediate object of this communication is to direct attention to the influence of shortening of one leg from early age, in inducing asymmetrical distortion of the pelvis; and to the obstetric indications involved. In this case it is clear that the main work of supporting the body, and of locomotion, was thrown upon the sound right leg. The muscles connecting the right pelvis with the right leg assumed a more active development, and wrought a corresponding development of the bones to which they were attached. Concurrently with this stimulated growth of the right pelvis and leg, the left pelvis, although not undergoing a process of atrophy, yet underwent a comparatively slow development. The result was a fully, perhaps an excessively developed right half of the pelvis, a contracted left half of the pelvis, a narrowing of the conjugate diameter, an oblique distortion of the brim, and a pelvic cavity shallower on the left than on the right side. The deformity is not unlike the "schräg-verengte" pelvis of Naegele; but there is no disease of the sacro-iliac joint or of the osseous tissue. I am inclined to think that deformities similar in kind, but less in degree, the consequence of lesser degrees of claudi-

cation, or of unequal muscular power of the legs, may be not uncommon.

What are the obstetrical indications? In cases of which the present may be taken as the type, we have before us a deformity involving a peculiar difficulty to the passage of the head when it presents at the brim in the first or most frequent position. The occiput, or larger end of the head, lies over the left or contracted side of the pelvic brim. In this position a full-sized fully ossified head cannot enter the pelvic cavity. An unequally contracted pelvic brim is not favorable to the adaptation of the long forceps; it is probable that there may not be room enough for one of the blades; and if the instrument can be locked, as it was in the case I have related, it must act by sheer violence by pulling the head through where there is least room, and consequently at the greatest risk to the child's life and to the mother's tissues. Of course there is an easy solution of the difficulty in the sacrificial operation of craniotomy. But if the head can by any means be brought through entire, without adding to the danger of the mother, craniotomy must be peremptorily excluded. Now, maintaining strict reference to the problem proposed, I believe that we possess a means of delivery which offers a reasonable prospect of the birth of a living child, combined with the greatest attainable security to the mother. We have but to bring the larger end of the child's head into correspondence with the larger side of the pelvis, to enable the head to enter the cavity with comparative ease. This is to be done by turning. If we pass the left hand into the uterus, and bring down the legs, the child when rotated will enter the pelvis with its breech in the left sacro-iliac diameter, and its head in the right sacro-iliac diameter, but with the occiput reversed and directed to the right side, where there is most room. Traction then will be exerted under the most favorable conditions for both mother and child. If it be estimated that the head at term would be too large to admit of delivery even by turning, without perforating, then

we have the resource of bringing on labour at an earlier period.

The case which under ordinary treatment would involve danger to, or the sacrifice of the child, and great hazard to the mother, thus enters within the domain of conservative midwifery.

CASE

OF

DOUBLE MONSTROSITY.

BY

JOSEPH GRIFFITHS SWAYNE, M.D.,

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Read December 5th, 1860.

This specimen of double monstrosity was brought to me last summer, by one of the midwives of the Bristol Dispensary, and is now placed in the museum of the Bristol Medical School. On examining it, I found the following peculiarities. The union between the two fœtuses apparently extended from the umbilicus to the top of the thorax, the left fœtus being of full size, and much larger than the right.[1] The right arm of the right fœtus, and the left arm of the other, were quite distinct, and widely separated, but the other two arms appeared, on a superficial examination, to be united as far as the wrist, the hands alone being separate. The arms above the elbow were also united by integument to the thorax. All the other parts were quite separate and distinct. On dissecting the monstrosity, I found that the ribs of each fœtus were united to a common sternum; to the upper part of which, also, the four clavicles were articulated, and the four sterno-cleido mastoid muscles attached. On dividing the sternum in the median line there appeared to be one large thoracic cavity, common to

[1] The left measured twenty inches in length, and the right seventeen. Both were males.

both children. There was a single pericardium, containing two perfect hearts quite distinct from one another. The only direct venous communication I observed was a large

Double Monstrosity, front view.

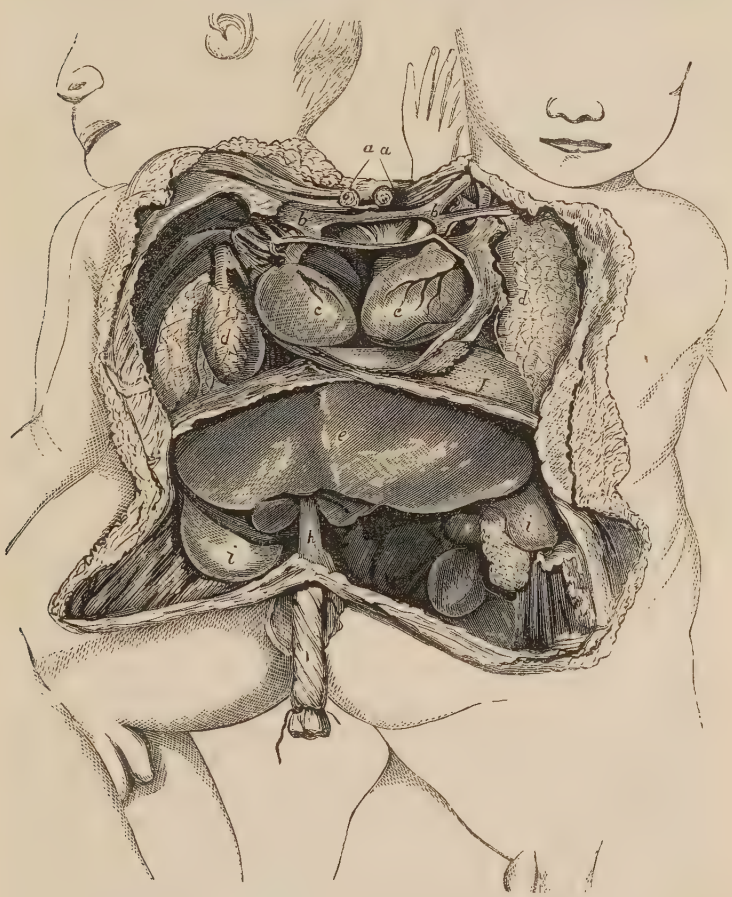
branch which passed from the left vena innominata of one child to the right vena innominata of the other. There were four perfect lungs, and all the other thoracic viscera were double. The ribs on the posterior side of the thorax were not fully developed; their free extremities in one fœtus lay close to, but not in connexion with, those of the other. On opening the abdomen there was a single diaphragm, and a large liver, common to both. A single umbilical vein proceeded from the umbilicus to the anterior margin of the liver, and subdivided posteriorly, to join the two

inferior venæ cavæ. There was but one umbilical cord, and this contained the single vein just mentioned, and four umbilical arteries. The stomach and intestines, spleen,

Double Monstrosity, back view.

kidneys, bladder, pancreas, and, in fact, all the other abdominal viscera, were double. On dissecting the two upper extremities, which were united together posteriorly, I found two distinct clavicles, lying side by side, quite close together, and articulating with the upper part of the common sternum. The two scapulæ were likewise distinct, as were also the heads of the humeri, but inferiorly these bones were united so as to form one broad articular surface for the two ulnæ, which were united at their upper extremities, but distinct at their carpal ends. Between the two olecranon processes there was a deep groove for the ulnar nerves. All the

other parts of the arm and forearm were distinct, but, as before mentioned, they were inclosed in one common integument as far as the wrist. There was no other peculiarity worthy of mention.



Thoracic and abdominal viscera of Double Monstrosity (the stomach and intestines have been removed).—*a, a,* Right and left clavicles of each fœtus, showing their sternal extremities; *b, b,* right and left venæ innominatæ of each fœtus; *c, c,* the two hearts, inclosed in a common pericardium; *d, d,* lungs of each fœtus; *e,* common liver; *h,* umbilical vein; *i, i,* kidneys; *i,* diaphragm.

PELVIC CELLULITIS AFTER A FIRST PREGNANCY,

FOLLOWED BY

SUPPURATION AT THE BACK AND FRONT PARTS OF THE VAGINA.

BY

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Read December 5th, 1860.

As the following case of pelvic cellulitis presents some features of interest it has appeared to me of sufficient importance to lay before the Fellows of the Society.

Ann W—, æt. 24 years, of leuco-phlegmatic temperament, residing in Somers Town, and married two years, was confined of her first child on Wednesday, the 20th of October, 1858. Four days afterwards, on the Sunday, she was seized with shivering, but no pain. The night after, pain commenced in the right iliac region and groin, which continued without intermission, associated with great tenderness of surface and general weakness. At the end of the thirteenth day the baby died, the milk gradually disappearing before that event took place. From the history given by Mrs. W.'s mother, who was present at her labour, there seemed to be nothing unusual about it, excepting that it was prolonged and tedious, with a head presentation. She was attended by a neighbouring practitioner up to the 6th of December, when she came under my care. At this time she was confined seven weeks. I had not the advantage of any information from the gentleman who attended her, but was indebted to the patient's

mother, a very intelligent person, for her history before I saw her.

The pain that had commenced in the region described, namely, the right iliac and groin, continued to be most persistent in the same place, with now some slight swelling about the pubis. The pain was increased on pressure, and there was diffused tenderness over the right lower half of the abdomen. I could detect some fulness in the vicinity of the cæcum, but no distinctly defined tumour. She was exceedingly weak; pulse 120, and feeble; skin dry, harsh, and hot; tongue furred; bowels had been open; urine scalding.

Under the use of powdered opium (two thirds of a grain), gray powder, and the golden sulphuret of antimony, three times a day, she improved very much; the pains greatly diminished, the skin became moist, and the tongue clean, although the bowels were unopen.

December 10th.—The quantity of opium was diminished to half a grain three times a day, and rhubarb was substituted for the sulphuret of antimony.

14th.—The pain was much relieved, and the bowels open. She sat up a little in bed; but this was followed by an aching but not very painful sensation in the back.

17th.—Although she has complained of pain on micturition ever since her confinement, it seemed to be now increased. A suitable mixture was prescribed, and some mild aperient medicine twice a day.

24th.—The pain on micturition continues very severe, with a copious vaginal discharge. An examination showed the vagina filled with it. A lotion of the chloruret of soda was ordered (four drachms to a pint of water), and the anodyne and diuretic mixture to be continued.

31st.—The discharge has wholly disappeared, and the vagina is clean; micturition is now easier; the bowels were relieved on the 27th, by two drachms of castor oil, but there is still pain in the side. The lotion to be continued for a little longer.

4th January, 1859.—To relieve the pain in the side, four

leeches were ordered to be applied. These produced the most marked relief, and the pain was not felt since.

7th.—On careful examination, I detected a prominent fluctuating tumour, but hard and painful, occupying the lower part of the posterior wall of the vagina. Poultices were ordered to this, and an alterative and tonic mixture presented three times a day, each dose containing two grains of iodide of potassium with a little tincture of opium; to have, besides, ten grains of rhubarb twice a day.

11th.—Bowels relieved two or three times. The abscess in the vagina had burst, but another had formed around the urethra, which is much more swollen, hard, and inflamed. Numerous small ulcers are present on each side of the labia, from the meatus downwards; pulse 92, a little stronger. Although these ulcers are not specific, I prescribed Lotio Nigra and small doses of mercurials and Dover's powders thrice a day.

14th.—Is about the same in her general health, but suffers great pain below; every time the lint is changed there is some pus on it. There is still some tenderness and enlargement about the urethra, but not so bad as it was. The swelling has reappeared at the lower part of the vagina; pulse 104, weak.

18th.—Pain is present in the right side, running down the thigh nearly to the knee, and then right across the lower part of the belly to the other side. Micturition is very much better, with comparatively trifling pain since the 17th. The swelling at the back part of the vagina has gone.

28th.—Has been sitting up all the week, and is very much better; the urine still scalds a little. Can now walk round her bed; the pain in the side has completely gone. On the 26th a little blood was passed in her motions.

February 4th.—Quite free from any uneasiness on micturition. The sores in the vagina are all healed.

15th.—Yesterday she had violent pain across the abdomen, and to-day the catamenia have appeared in small quantity, with griping pains.

18th.—Catamenia have continued since. Is much better

in other respects. Was down stairs on the 13th for the first time.

March 14th.—Catamenia have appeared profusely and quite natural, and with no pain. She is otherwise well, and picking up flesh and strength.

A week later she passed a little blood in her motions, and from that time her recovery was uninterrupted and complete.

On the 6th March, 1860, I confined Mrs. W— of a healthy boy after only an eight hours' labour; the presentation was natural, and the placenta followed a quarter of an hour after the birth of the child. There was little or no hæmorrhage, and but a small quantity of liquor amnii, although she had had a very large belly before delivery. Not a single untoward symptom afterwards presented itself.

It is well known that pelvic cellulitis is a serious affection occurring after delivery, and when followed by suppuration some anxiety is felt as to the course the matter may take. If the abscess should burst into one of the outlets of the body, like the uterus and vagina, or the bladder and rectum, there is always a fair prospect of recovery. Fortunately in the present instance, nearly eleven weeks after the first symptoms declared themselves, the abscess pointed at the lower and back part of the vagina, and spontaneously evacuated itself, with complete contraction of its walls. Some matter also found its way to the anterior wall around the urethra, which no doubt was the cause of much of the difficulty of micturition. A question arose in my mind, whether both of these abscesses originated from the same source, that is, the primary suppuration higher up in the right side of the pelvis, and it seemed to me that it must be so, from the fact of their forming pretty much about the same time. The quantity of matter discharged did not exceed several ounces, and to this I attribute the successful result of the case. The general health was well-supported throughout by liberal diet and wine, together with tonic and anodyne remedies. There was a curious

feature in the case, which I have not mentioned, and that is, the patient could take nothing warm; all her food had to be swallowed cold.

The catamenia appeared seventeen weeks after confinement, and subsequently resumed their healthy condition. And what is of some importance in the history of this case, pregnancy again took place, and a second child was born nearly seventeen months after the birth of the first, without any inconvenience or bad symptom whatsoever, although the patient's mother was exceedingly anxious about her.

ANNULAR LACERATION OF THE CERVIX UTERI.

BY

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PRESIDENT OF THE SOUTH MIDLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION, ETC.

Read December 5th, 1860.

In the morning of the 8th of February, 1857, I was sent for by the practitioner in attendance to see a woman in the country, who had been in labour since the morning of the 5th. The patient was forty-two years old—in her first labour at the full period. From the gentleman in attendance I learned the following facts:—namely, that he had been sent for at 1 o'clock p.m. on the 5th, and that she had been labouring under some slight pains during the morning before he was sent for. He found the os uteri not sufficiently dilated to admit the tip of the finger, and the liquor amnii had been dribbling away for some hours. The pains were principally across the abdomen, "grinding" pains, not bearing down, not very regular, and not very severe. At 12 o'clock at night he gave her a dose of Tinct. Opii, and remained in the house all night. At 9 o'clock in the morning of the 6th, finding that the os uteri was not dilated larger than the size of a sixpence, and that the pains had entirely left her, he went home, and called again in the afternoon. At that time the os uteri was not dilated to the size of a shilling, the pains were more regular, and he ascertained that the head was presenting. He was surprised at the slight impression produced upon the head, and upon the os uteri by the pains, which were now considerably stronger. The os and cervix uteri were quite

loose in front of the head, and the finger introduced into the os uteri could readily move it about in any direction, even during the existence of a pain. He left, requesting them to send for him when the pains became more bearing down. Early in the morning of the 7th he was sent for, and found the pains much more regular and severe than when he had left, and the os uteri very slowly dilating. Still the os uteri was not larger than a shilling, and the pains made very slight impression upon it. She had passed no urine for several hours, and the bladder was so tense that it could readily be felt through the abdominal parietes. She was directed to attempt to pass urine in the kneeling position, but not succeeding in this, a pint and a half of highly coloured urine was drawn off by means of a catheter. The instrument was introduced with some difficulty, in consequence of the pressure of the fœtal head upon the pubes. The pains continued regularly during the day, making but slight impression upon the os uteri. At 9 o'clock in the evening the pains somewhat flagged, and a dose of secale was given her, and repeated at half-past 10 o'clock. Urine had not passed since the introduction of the catheter in the morning, and an attempt was made to introduce the instrument, but unsuccessfully, in consequence of the cranial pressure. The gentleman in attendance remarked that before the pains flagged the patient complained of a severe continuous pain in the lower part of the abdomen, a pain which she described as being of a different character from the labour pains. This circumstance made him somewhat uneasy about the safety of the bladder, and induced him to attempt the introduction of the catheter. During the night the pains continued regularly; the os uteri very slowly dilated to the size of a florin, and became less loose and moveable in front of the head; in fact, early in the morning the anterior lip of the os uteri was distended somewhat, and stretched by the head.

At 10 o'clock in the morning of the 8th I was sent for, and found her in the condition to which the previous short history has brought us. The pains were regular and strong;

the os uteri was dilated to the size of a florin; the anterior lip was somewhat tense, and stretched in front of the head; the pelvis was evidently somewhat contracted; the pubic bones too near to each other, and the os coccygis firm and unyielding. The vagina was cool, moist and apparently dilatable. The presenting part conveyed the impression that the child was dead. There was no caput succedaneum; the bones were sharp and overlapping, and the hemicrania loose. The bladder was distended, but the rectum was empty. I tried to introduce the smallest catheter I had with me, but ineffectually, the pressure of the head was too great. I wrote a note to my excellent and experienced friend and brother practitioner, Mr. Blower, requesting him to bring with him a small flat catheter, and a perforator. He reached our patient about 2 o'clock p.m., made an examination, and we retired to a separate room for consultation. Mr. Blower said that the head was clearly felt coming down under the pubes, and that he could distinctly feel one of the ears. I expressed my surprise at this, and made another examination when I found the os uteri certainly not larger than a florin, the anterior lip somewhat stretched over the head, and no possibility of feeling an ear. My friend again examined, and on directing the finger more backward than in his former examination, felt the os uteri as I had described it. Immediately under the pubes he felt what he had before considered to be the os uteri, and could distinctly feel an ear. We exchanged positions, and on passing the finger anteriorly under the pubes I could feel an ear, and could pass the finger (the right forefinger) behind what appeared to be a band of about an inch and a half in breadth, bringing it through posteriorly what I had hitherto regarded as the os uteri. We consulted together, and came to the conclusion that this was a band across the os uteri, which might perhaps require division. Soon afterwards we found that we could slip the supposed band posteriorly. The pains were strong and regular, but the impression made upon the head was slight, and we determined upon attempting to relieve the bladder preparatorily to applying the

forceps. With some difficulty we introduced a small catheter, and drew off about six ounces of high-coloured urine. Mr. Blower succeeded in applying the forceps without much difficulty, and during the four or five next pains made gentle traction, but with no impression. We did not think that greater force would be justifiable. The child was dead, and there was some degree of rigidity of the external passages, and apparently a band of membrane posteriorly, a short distance above the perinæum, so that we determined upon craniotomy. After the escape of the cerebral substance Mr. Blower introduced his right forefinger into the cranial cavity, and brought down the head with the next pain, the face emerging from behind the perinæum. After the separation of the child, on following the cord with my fingers I found what had been supposed to be a band lying loose in the vagina. I hooked it down with my finger, and a careful examination sufficed to prove that the mass consisted of the os uteri and surrounding uterine structure, of the breadth of about an inch and a half—separated from the body of the uterus at every point, with the exception of about an inch and a half posteriorly. The os uteri was of the size of a florin, and its margin thin, even, complete, and well-defined. The lacerated edge was jagged, rough, rather thicker than the margin of the os, but not so thick as the intervening uterine texture. The colour of the entire mass was of a purplish-red, venous tinge. There was not the slightest appearance of hæmorrhage from the jagged edge, nor was there the slightest pulsation in the entire mass. There was no hæmorrhage per vaginam, and the placenta came away favorably.

A consultation was held on the best mode of dealing with this contingency. We feared the division of the small slip by which the cervix uteri was attached to the body of that organ, and agreed to allow it to remain in the vagina, merely passing a piece of tape through the os uteri and tying it loosely, with the view of not losing the mass on its complete separation. This was done, and directions were given to the nurse not to allow any traction of the tape, and

carefully to preserve anything which might pass. The poor woman expressed herself as very much relieved. We ordered her to take some cool tea. A draught with a few drops of Tinctura Opii was given; and a mixture with Sp. Æth. Nit., and Liq. Ammon. Acet. in camphor julep.

9th.—She had some good sleep during the night, and had suffered no pain; the pulse was 120. There was some tympanitic distension of the abdomen, and she had not passed urine. The bladder was distended. Two pints of urine were drawn off by the catheter.

10th.—She has had no pain. The abdominal distension had considerably diminished; The pulse was 114. She had not passed urine, and the catheter was introduced. I used very gentle traction of the tape, but found that it was firm.

11th.—The pulse was 116; the discharge was copious and very offensive; the skin was moist; the bowels had not acted, nor had she passed urine; the catheter was introduced. The portion of uterus to which the tape was attached was loose, and I brought it away; it was much discoloured and decomposed, and the continuity of the circle of the os uteri was destroyed. She was ordered to continue the medicine, and to take one tablespoonful of castor oil in the morning, if necessary.

12th.—The pulse was 114, soft and compressible; the skin was moist; the discharge was still copious and offensive; the bowels had been freely relieved, but urine had not passed; the catheter was introduced. Perst. Mist.

The report on the two following days was of a similar character.

15th.—We found that she had voluntarily passed urine in small quantity three times; the bladder had not been emptied, and about a pint of strongly ammoniacal urine was drawn off. Ordered a mixture of diluted lutro-muriatic acid and infusion of quassia.

16th.—She had voluntarily passed a considerable quantity of urine. During the preceding night she had passed some blood of fresh appearance, and coagula, per vaginam. There

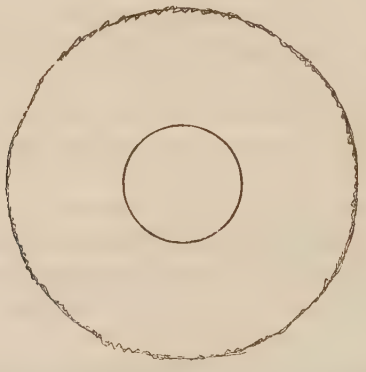
was no pain, and no abdominal tension. The pulse was good.

19th.—She was better in every respect; there had been no return of hæmorrhage. She was allowed animal food, and a small quantity of ale.

She gradually recovered without a bad symptom.

I saw our patient on the 14th of November, 1860, and ascertained that the catamenia made their appearance six or seven weeks after the confinement. They have recurred at irregular intervals, sometimes three or four months, at other times six or seven months, until a year ago, when they ceased altogether. She has never had any other discharge per vaginam, and has never suffered any inconvenience since her confinement.

Remarks.—I have chosen the term "Annular," to distinguish that form of laceration during labour by which a complete ring of uterine structure, consisting of the os and cervix uteri, is separated from the body of that organ; the child having passed through the laceration and not through the os uteri. The term "Circular" might be used, but is scarcely so distinctive as that of "Annular." The accompanying outline sketch will convey at a glance a correct impression of the nature of the injury.



The cause of this kind of laceration is the protracted pressure of the head against a ring of the uterine parietes

in a contracted pelvis; perhaps also conjointly with a sharp linea-ileo-pectinea. An early discharge of the liquor amnii will of course tend to aggravate the mischief. The particular feature in the case which I have recited was the undilated os uteri, and the loose condition of the os and cervix uteri in front of the head—even to an advanced period of the labour. This, in fact, according to the testimony of the gentleman first in attendance, had been characteristic of the case nearly to the time when I was called to the patient, on the fourth morning of the labour. It is probable that this will be found to be characteristic of cases of annular laceration, for it is in this way likely that the pressure of the head is concentrated upon a circle of the uterine walls corresponding with the margin of the pelvis, instead of being partially expended upon the surface of the uterus below this point. The head is, in fact, impacted in the pelvis, pinching the walls of the uterus between it and the pelvic bones, but all parts of the uterus below this pressed ring and the head are lax, and unaffected by the uterine pains. The head is continuously and with immense force pressed against this girdle of uterine wall, so that the parts are either cut through, or thinned, softened and sphacelated. The separated portion of uterus in this case had the appearance of having been thus pinched and thinned. The substance of the jagged edge was thinner than the structure of the uterus intervening between it and the margin of the os uteri.

The period at which the laceration occurred was, I think, indicated by the severe, continuous, and peculiar pain in the lower part of the abdomen, followed by the flagging of the true uterine pains. This occurred on the third evening of labour. There was not the sudden cessation of pain as in rupture of the body of the uterus, nor was there prostration of strength, or vomiting, but the pulse continued strong, undisturbed, and the patient in good spirits. As Dr. Braxton Hicks truly remarks ('Guy's Hospital Reports,' 3d series, vol. v, p. 84.) "the formidable symptoms to be seen in rupture of the body of the uterus are not to be ascribed to simple laceration of the cervix." It is

astonishing what an amount of injury of the cervical region of the uterus will be borne with impunity, provided the peritoneal coat be not involved in the mischief.

It is worthy of observation how, apparently, my friend Mr. Blower and I were playing at "cross-purposes," with regard to the condition of the os uteri and presenting part, immediately after that gentleman first saw the patient. It will at once be seen, too, how naturally both of us fell into the belief that ours was a case in which there was a broad band across the os uteri. The true nature of the case, however, was sufficiently obvious after the delivery of the child. It is not improbable that the supposed band across the os uteri in some cases may have been similar to this one, and that it simply and really consisted of a segment of the neck of the uterus itself after laceration. I think this the more likely, since the details of my case were related to a gentleman who had once met with a band across the os uteri about an inch in breadth. This he divided with a curved scissors. It was suggested that probably the band in his case was like the one in mine, and he thought it might have been. The labour was protracted.

With regard to the treatment, the principal questions which suggest themselves are whether craniotomy should have been resorted to at an earlier period; and whether any means should have been adopted to dilate the os uteri. Should craniotomy have been performed, notwithstanding the comparatively undilated os uteri and lax condition of the os and cervix in front of the head? If with this undilated os, and lax condition of the os and cervix, craniotomy would be impracticable, should means be adopted to dilate the os uteri, and if so, what means? If sharp labour had lasted for a protracted period, and if there were good evidence of the death of the child, I am inclined to the opinion that the head should be diminished by the earlier use of the craniotomy instruments. Would enlargement of the os uteri by means of a bistoury be justifiable in an extreme case of this kind? In a case of incomplete obliteration, published by Dr. Bleynie, in the 'Gazette Médicale,' 1837,

p. 247, it is stated that the rigid cicatrized os uteri was lacerated by the strength of the uterine contractions, and the patient did well. M. Depaul in an article "de l'oblitération complète du col de l'utérus chez la femme enceinte, et de l'opération qu'elle réclame" ('Gazette Hebdomadaire,' November 9th, 1860, p. 734), writes very decidedly of the "innocuité" of free incisions made through the cervix. In a short but excellent paper, on what is commonly called "rigidity of the os uteri," by Dr. C. D. Arnott, that gentleman advocates the notching the os uteri with a guarded probe-pointed bistoury in those cases where manipulation with the finger does not suffice to dilate the os ('Lancet,' November 17th, 1860, p. 484). It must be borne in mind, however, that the difficulty in our case did not arise from rigidity of the os uteri. Had the head pressed upon the os uteri, and had the force of the uterine contractions been expended in this direction, the os uteri would have dilated long before.

An eminent obstetric authority, Dr. Uvedale West, of Alford, to whom I had communicated the particulars of this case, writes to me—"If the case had been mine I should, long before sending for you, have endeavoured to dilate the rigid os uteri by introducing first one, then a second, then a third, then a fourth finger, side by side, which may be done, and which I have frequently done in primiparous cases of rigid os uteri, without disturbing the position of the presenting part, passing the four fingers flat over the head as far as the metacarpal knuckles. The plan will generally answer." Again, Dr. West remarks,—"I perfectly understand and appreciate your description of the particular feature of the case. I have myself frequently been amazed with that lax and flabby condition of the cervix, with an os uteri either rigid or dilatable, the head resting immoveable; and under such circumstances I have of late years always manipulated so as to procure sufficient dilatation to admit either the vectis or the forceps, usually the former, as being easier introduced under such circumstances; the head being then pulled down into the pelvis, is readily drawn through the os."

It was to be regretted that the lacerated portion did not entirely separate during labour; but much as so rare a specimen was to be coveted, we were all of opinion that it was not justifiable to cut through the slight remaining connexion.

That this is not a common form of laceration is probable from the fact that but few such cases have been recorded. The most complete case is published in the eleventh volume of the 'Medico-Chirurgical Transactions,' by the late Mr. N. P. Scott, of Norwich. It is described at length by Merriman, in his 'Synopsis of Difficult Parturition,' 1838, p. 269, and referred to in a foot-note by Burns ('Principles of Midwifery,' sixth edition, p. 493). In this case the separated cervix uteri was found to have escaped from the vagina with the discharges. The preparation is in the museum of the Middlesex Hospital, and is well figured by Merriman. The previous history of the labour in Mr. Scott's case is not very satisfactory; but the probable cause of such mischief is well illustrated by the case which came under my notice.

Two cases are alluded to in Ranking's 'Half-yearly Abstract,' vol. i, p. 236, by Dr. Davis, of Newry ('Dublin Medical Press,' January 15th, 1845), and by Dr. Reardon, of Tipperary ('Dublin Medical Press,' March 19th, 1845). In the case by Dr. Davis it was the fourth confinement. On the fourth morning a transverse rent of about two inches in the cervix uteri was discovered anteriorly. Previously to using the perforator the separated portion of the os uteri was divided longitudinally. During the delivery of the child the separated portion of the os uteri was very much enlarged, and afterwards appeared between the labia, and sloughed off on the sixth day. Dr. Davis thinks about two thirds of the os uteri came away.

Dr. Reardon's was a primiparous case; and the os uteri was morbidly rigid. After having been twenty-four hours in labour, the perforator was used, and powerful traction had recourse to. When the tractor or crotchet was being laid out of the hand, something was observed attached to it, and

laid aside for examination. "It was found to be the os uteri, and the circumference of at least two inches all round about from the inner edge of the os, measuring five inches across, which was found incapable of further dilatation." A preparation was made of it for the Coombe Hospital. The patient menstruated afterwards.

A fourth case is given in Ranking's 'Half-yearly Abstract,' vol. xiv, p. 181, from the 'American Journal of Medical Science,' April, 1851, entitled, "Separation of the entire circumference of the vaginal portion of the cervix uteri, from pressure of the child's head during labour." In this case, a first labour in a patient from thirty to thirty-five years of age, "the head of the child descended, carrying before it the os uteri;" and "nearly thirty-five hours from the commencement of active labour, the pains having become still more energetic, the head was suddenly delivered, and upon examination it was found that a portion of the cervix had preceded it." It appears that it was not quite separated, and that about half an inch of the portion attached was cut with the scissors. The width of the separated cervix varied from an inch to an inch and a half.

ON THE VALUE

OF

ANÆSTHETIC AID IN MIDWIFERY.

BY

CHARLES KIDD, M.D., M.R.C.S.

COMMUNICATED BY DR. TANNER.

Read December 5th, 1860.

IN obstetric practice, the instances where I have found the inhalation of ether or chloroform to be called for in an especial degree, and where they proved useful, have been cases of version, forceps, twins, convulsions, and crotchet operations; with regard to which it would be of very great value and interest to obtain the further experience and opinions of this most practical and useful Society. In another place I have published the results of 360 cases of midwifery attended or treated under ether, and 1700 under chloroform, without any accident traceable to the use of anæsthetics. Of these two agents I believe ether, though not safer, is in some measure superior to chloroform in midwifery, as it possesses a remarkable power of relaxing muscular tissues, especially those of the perinæum and neck of the uterus. Both agents, however, relieve pain equally well; and relief of pain saves nerve force, and enables the patient to resist causes of fever and inflammation, which frequently interfere with recovery.

IN NATURAL LABOUR, in cases of ordinary duration, where we are now so often asked if we approve of chloroform, it may be open to discussion whether (as we have not any important point to gain by the inducing of anæsthesia, and as there is not any necessity for it,) we might not fairly dis-

pense with it; still we might not subscribe to the doctrine that the patient or her friends are the best judges in the matter. Pain is at all times in itself an evil, and we may administer just so much chloroform as renders everything safe, and the pains bearable, without producing entire narcotism. The medical attendant who feels for his patient, is not justified in refusing this amount of relief, if the patient urgently asks for chloroform, and her agony is prolonged and great; and this Society might act wisely by supporting such an aspect of the question of chloroform rather than the view often promulgated, that chloroform is always full of danger, and, that as our great-grandmothers did without it, our daughters or wives ought to do the same!

There have been no accidents in about forty thousand obstetric cases under chloroform. This I am inclined to attribute to the unusual and active condition of the reflex system during labour, and the active condition of the respiratory system especially. Chloroform will not be desirable in the first stage of tedious labours, nor in powerless labours; but, even here, I would not be afraid of its use. The subject of anæsthetic aid in midwifery is perhaps one of the largest in the domain of practical medicine. The subject is new, and, to be rightly understood, embraces a very considerable knowledge of what chloroform has been doing and is doing in medicine, as well as in the sister art of surgery. Surgeons are at sixes and sevens as to rules in resections, or in primary and secondary amputations, and most curious mistakes are made: hernia cases are treated with chloroform and without; just as exhausting labours, with rigid perinæums, are conducted with and without chloroform. Yet one can see the superiority of the modern practice in hernia, with chloroform, to that of Sir Astley Cooper's era without it. Taking any twelve ovariotomy operations where I have given chloroform, and any twelve cases of tooth-drawing, or other trivial operations, I have had more reason to be afraid of the trivial cases than the terribly formidable ovariotomy cases. Why this is so, we shall understand further on, but is learned from general

surgery. We learn, too, from general surgery, the import of vomiting under chloroform; the value of ether and chloroform mixtures; the mistaken notion of diseased heart contra-indicating chloroform, and so on.

Whether the use of chloroform, in average cases of parturition, renders the labour a little slower than it otherwise should be, may be open to controversy. If the chloroform is given in moderation, and with skill, the difference as to time is hardly appreciable; and it is satisfactory to feel that our patient is not suffering from unnecessary pain, even if the labour be somewhat retarded. Some patients, too, require very little chloroform, others require a good deal; but in the vast majority of cases a small quantity is sufficient, and affords immense relief.

Again, in hysteric females we meet with jactitation, or restlessness; they complain of "all sorts of things," to use a common phrase; they talk, or sing, or dream (for this second stage of chloroform, so adapted to midwifery practice, is peculiarly a land of dreams); they have throbbing of the head, and palpitation; they make no effort, and they neglect to hold on by the old traditional towel tied to the bed-post. Still there is no cause for alarm.

In other cases, not hysterical, where the pains are strong and quick, the chloroform appears to have little other effect than the desirable one of deadening sensation. The os uteri yields quite easily, and the head descends so well that one is tempted to think, what is probable, that the soft parts have been rendered more dilatable by the anæsthetic. This, indeed, is the usual progress of events in labour cases under chloroform. If in such a patient, on the other hand, we think the chloroform delays the presenting part at the perinæum, we may gradually lessen, or even stop it for a short time, or altogether. The expulsive or bearing down pains then at once come back again, and the labour is soon terminated; so that we can always fall back on the natural effort, without chloroform, if we wish it. We must be prepared for a great variety of phenomena, indeed, in these cases. Thus, some patients will possibly cry out most noisily, though

they can have no pain whatever, and do not remember anything when the anæsthesia wears off.

As to the exact mode or manner of administration of chloroform or ether in an ordinary case of natural labour, little need be said. In the sick-room, surrounded by anxious friends, we should avoid a strange display of tubes and inhalers. There is something repulsive, too, in the idea that they have been used by one patient after another, the previous patient possibly a case of infectious puerperal fever; nor can we so well follow with our left hand the various movements of the head, with tubes and inhalers, as with a simple piece of sponge, the patient's lips having been previously greased with oil. It is a good plan, in fact, and by its simplicity inspires confidence, to direct the patient to smell to or apply the sponge, or folded handkerchief, herself. The poor woman sniffs at the handkerchief all round, to catch the least trace of the chloroform odour, which, she says, is delicious, and asks and begs for more. But with the strange tubes and inhalers she is alarmed, and has a disposition only to gasp and struggle; the inhaler, in fact, covers up the mouth and nose, as the patient struggles about in the bed, and if the attendant, as I have been dozens of times, is by himself, and watching the pulse of the patient, guarding with his right hand the perinæum, and only one (the left arm) free to open his chloroform bottle or apply the sponge, or snap it away, if necessary; if the attendant has to give his careful attention to the case also, and to keep his countenance composed, as if nothing was really going on, he will wish to be unencumbered with complex tubes and silver bottles the size of a balloon.

In one case recently, a primiparous patient, where the lady suffered very intense pain till I gave her chloroform, the labour near the end (though the pains did their work very well) did not progress as I wished. The child's head, in fact, was half born, quite black, for nearly a quarter of an hour, and two tight coils of cord could be felt round the neck; these were felt with my right-hand fingers, my left-hand fingers feeling the pulse of the mother as to the chloroform.

She kept crying out loud, "Is my baby born?" She was told, by some foolish lady, that the child would be born three hours before the danger of the chloroform would be passed by. Such is the mischief the already published two or three cases of accident do. Her sisters round the bed began to cry, and grow hysterical. I was not uneasy, only if I had had two more arms I could better have done what I wanted, while, if I had had plaything tubes and balloons, I should have been brought to a stand-still. Being a primiparous patient, and the pulse calm and good, it was, of course, only the work of an instant's consideration what to do; to sprinkle a good dose of chloroform on the handkerchief, with one hand, while with the other I took out my pocket-case. Then, pinching the cord at two points, I cut it across, while the child's face was thus only half over the perinæum. The cord gave a frightful splash of blood, but, holding one end tight, I tied the other, and let it loose. As soon as this was done the child's head was born at once. The mother had grown quiet, no more chloroform, of course, was needed, and everything ended perfectly right. The child had four coils of cord round it, and was quite asphyxiated, but was easily brought round, and is now alive and well. This is a kind of case one often meets. There is no necessity in the world for a second male assistant to administer the chloroform with masks and tubes. The sponges or handkerchiefs inspire confidence by their simplicity, and as the physician has only one hand to spare, the sponge is easily managed.

In midwifery practice mixtures of ether and chloroform are not very desirable, or only desirable when it is remembered that ether is six times as volatile as chloroform; that one drop of ether will fill a house with as much vapour as an ounce of chloroform; and that a patient inhaling a mixture is in reality inhaling pure ether, as the chloroform is left behind unchanged. Ether takes fire very readily, also, so that it does not seem to be a very safe agent in the lying-in chamber, especially at night. Death, too, occurs as often from ether as from chloroform.

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Chloroform used in cases of twins has been found very useful. Thus, I have known a case of this kind: the first child (as often occurs) has been born without much trouble, ordinary head presentation; but the second child comes down with a shoulder, and, the pains being severe and continuous, it is next to impossible to introduce the hand to turn the child. Here chloroform is most valuable, as permitting the hand to enter the uterus. In such cases I have also found (or rather in simple arm-presentations, with undilatable os uteri, and the maternal parts dry, hot, and tender) emetic tartar, in small doses, to act very well, or Liquor Opii; but I would offer a word of caution, not to go suddenly from them to chloroform. I find that emetic tartar and chloroform, exhibited together, may produce very formidable syncope, as I have known to occur more than once. Or in a second case of twins, the ordinary class of cases of twins, it may so happen chloroform has been administered, as usual, with the first child, the second child not expected. Here, I am of opinion it is advisable to stop the chloroform, or permit a period of full consciousness to intervene between the birth of the first and of the second child; this allows the patient a period of rest, when she may have some brandy and water, ammonia, wine, or tea, to recruit her strength to complete the labour; or even, if necessary (and this is curious), ergot may be now administered, antagonistic only to chloroform, perhaps, while the chloroform is acting on the system, but not afterwards; whether ergot may be given, however, must depend on the nature of the "pains." These, like reflex action in general, have a remarkable tendency to die out, or become exhausted in long labours, as may be often seen in tedious cases. This is one of the reasons, also, that chloroform, by inducing sleep and restoring reflex power, acts so favorably. This power has been probably worn out entirely with the first child, however, and now ergot may be preferable to chloroform, for a long sleep would not be desirable. In other words, ergot, in tedious cases, succeeds best if the os uteri be soft and dilatable; and as to reflex action, this power in a bad, tedious twin case, has been worn

out so completely with the first child, that a long sleep under chloroform, especially if there be hæmorrhage, might not, now that the first child is born, be advisable; and in that case ergot might be used, or the delivery might be left to nature. The only point the author thinks is indisputable is the following: that ergot and chloroform together are somewhat antagonistic, but ergot and chloroform administered alternately, may be exhibited with excellent effect.

The action may be compared to the use of opium and purgatives. After hernia operation opium is given, to allow rest to the congested intestine, but a purgative is added afterwards, to prevent the bowel remaining too long at rest. If we reverse this rule very great mischief may arise. Ergot of rye, it may be useful to remember, depresses the pulse even more than chloroform does.

As in tedious cases of twins, so it happens in some cases of tedious labour of the ordinary kind, that our patient requires sleep to remove the effect of exhaustion or emotion.

It is well known that one of the chief disturbing causes in cases of tedious labour, is emotion. An inexperienced or constitutionally delicate woman with her first or second child becomes frightened, a strange doctor has been called in, or some depressing passion of a family nature, or indigestion, or sudden diarrhœa has brought on her labour before its time; here a little chloroform or a dose of opium is very useful.

Emotions directly affect organic functions. Emotions differ from sensations only in the fact that they act irrespective of the brain. Emotion prevents sleep, destroys appetite for food, causes syncope or fainting, stops a labour previously going on. Under such circumstances chloroform is desirable. The system does not apparently suffer much in the first stage, but still the suffering leads to fatigue, and in nervous women loss of sleep is felt very severely. What is wanted is a new supply of reflex action, and if this is not obtained by chloroform or opium, we shall have intense exhaustion.

How does sleep differ from anæsthesia? We pinch a patient in the transitory state of chloroform narcotism after

painful versional delivery, or sprinkle the face with cold water, and she rouses up; otherwise she remains fast asleep. Young patients even will remain fast asleep after the weariness and pain of such a disease as stone in the bladder, or diseased knee-joint. In the latter disease it may appear paradoxical, but the best anodyne after weeks of sleepless misery is the sleep produced by a red-hot iron to the joint under chloroform! Sleep, I think, occurs only where there is exhaustion of sensorial and muscular power: anæsthesia is best where there is no exhaustion. Reflex power is the limiting line between sleep and anæsthesia; in sleep it is still active, in anæsthesia it is absent; a patient in deep anæsthesia, so to call it, is doubly asleep; a patient in a state of exhaustion placed under chloroform, is perhaps trebly asleep. This, in fact, is the only thing to fear in twin cases, and some others. Ergot therefore, is advisable rather than chloroform, but as said already, one may be administered alternately with the other.

Above all things I believe, we must take care to avoid exhaustion as much as possible in midwifery practice. A patient may not die of exhaustion, chloroform, or forceps, or the early stage of labour, to-day or this evening; but exhaustion will turn the scale against her to-morrow morning. Modern surgery rightly in cases of hernia strangulated going on to mortification, anticipates this exhaustion by operating early; and so in lithotomy. Again, by skill and experience we can anticipate, and chiefly by chloroform, the exhaustion of to-morrow in a midwifery case requiring versional delivery or forceps; the injury to the uterus of to-day from instrumental or other interference, will right itself; the same injury to-morrow, under exhaustion, will cause the patient's death. That appalling affliction uterine phlebitis, may set in from mechanical injury to the uterus, whereas if we had used versional delivery early, under chloroform, instruments or craniotomy would not have been needed at all. Chloroform, too, decidedly enables the patient to resist causes of fever and inflammation. I doubt very much if chloroform accumulates in the system in the ordinary import of that phrase. Such anæs-

thetics as Amylene, Acetone, and Carbonic acid are differently circumstanced, but our remarks in the present communication apply to chloroform and ether. One set of anæsthetics are soluble in the blood and fluids of the body, and accumulate; chloroform is insoluble, and passes off. Even common alcohol accumulates, and impedes labour.

The opinion formerly held was that chloroform had a tendency to accumulate in the system, and that in the later stage of labour, when the head arrives at the perinæum, we should lessen the quantity of chloroform, as it had already thus accumulated. We were told death might occur seventeen hours or three hours after, from this accumulation, but the probable fact is, chloroform passes out of the system at once almost; hence we give it only when the labour pains come on; and not in the intervals of pains, and if we lessen the quantity near the end of a labour it is because the efforts of the uterus are now rather expulsive than painful, the parts are now dilated, the rending asunder or cause of pain is lessened, and so we also lessen the amount of chloroform.

Next as to version cases under chloroform. In a case of versional delivery or turning without chloroform or ether, the process is excessively difficult, and painful to the patient, and is not very well accomplished till the os uteri shall have dilated to the size of a couple of inches at least. Before this period in the case the woman, too, will have suffered for hours intense pain, probably, and no little exhaustion, but under chloroform the turning may be effected much earlier.

Let us say it is an ordinary arm presentation, the accoucheur's hand is easily introduced into the uterus during anæsthesia, and the labour soon terminated; he need not wait for an interval of pain, nor is his hand squeezed and rendered powerless; if he has reason to fear hæmorrhage, he should remove the placenta at once. One of the effects of the chloroform is also to increase the secretion of viscid, greasy mucus in the vaginal passages, so favorable to delivery; the os may not be the size of a threepenny-piece, it may have even a sharp edge, but still, if the pains be active, and

hæmorrhage be absent, we should perhaps do wrong to run the risk of the woman becoming exhausted, waiting for what is termed spontaneous evolution of the fœtus. Experience, in fact, is most emphatically in favour of chloroform in these cases.

In such patients' cases I believe the judicious use of chloroform is a real blessing. In cases of excessive sensibility of the os uteri and vagina, also where "the waters" have long come away, and the uterus has closed with spasmodic force on an arm presentation, chloroform is invaluable. I have heard old obstetric practitioners say that they have had many instances of versional delivery, and of ineffectual labour, where, in their strong language, the women were like "screaming wild beasts." How often do we hear the poor creatures imploring us to "kill them at once!" Are we exercising our mission of tenderness, wisdom, and mercy then, when we know that such agents as ether or chloroform merely to lessen pain may be used with complete safety, if we still hold on to the idea or distinction of physiological pain that ought not to be interfered with, or hold on to that other strong dogma that because our grandmothers and great-grandmothers or other ancestors did without chloroform, we ought to do the same? One able and well-known obstetrician beyond the Tweed has had 300 cases of versional delivery, and he is every year more and more satisfied with chloroform.

Professor Simpson, in a letter which he favoured me with this year, says, of version and forceps cases:—"I should be as astonished to hear in Edinburgh of a patient being delivered by the forceps or turning without being chloroformed, as I would be to hear of a patient having amputation performed, lithotomy, or any other surgical operation of this kind without it." And he adds: "I have given chloroform to all my patients in midwifery, with very few exceptions, since 1847. If a medical man deems it his duty to relieve his patients when he can of the pains of pleurodynia, lumbago, dysuria, toothache, or any other severe form of suffering, certainly it is equally his duty to relieve his patients when he can of the pains of labour—pains more severe than

almost any other for which the aid of art is ever required;" and he concludes by some remarks in which I most entirely agree. "In a moral point of view," he says, "the refusing to relieve an obstetric patient of the suffering attendant upon parturition, seems to me a terrible and painful responsibility to be assumed by any man practising such a sacred profession as medicine is."

In forceps operations, as in lithotrity, obstetric authorities differ as to whether chloroform should be administered at all, or given after the blades of the instrument have been applied or before. Dr. Churchill, of Dublin, does not see much force in the objection that an unskilful operator in forceps cases, as in lithotrity, may do mischief, if he has not the patient's sense of pain to guide him. Dr. Murphy is of an opposite impression. It is useful to know, also, that where partial anæsthesia only can be procured, as in two cases given by Dr. Denham, much difficulty and not a little danger may arise in applying the forceps, so that it is advisable not to entertain the question of chloroform at all, rather than to administer it partially in forceps cases.

Professor Simpson advises, if the accoucheur has an anæsthetist in attendance in whom he has full confidence, that he should induce full anæsthesia, then apply the short forceps, and stop the chloroform, allowing the returning pains to assist the forceps traction; or if the accoucheur is by himself, he should also induce full anæsthesia, quickly introduce the blades, wait for a pain, and then proceed as usual.

In cases of abortion at the fifth or sixth month, the administration of chloroform has been strongly insisted on by a distinguished Fellow of this Society. The chloroform, as he has found, renders the extraction of the ovum more easy and more complete by its relaxing effect on the uterus.

As regards patients with distorted pelvis, chloroform is now found to be almost a *sine quâ non*, as by means of it the accoucheur's hand is easily introduced to measure the brim of the pelvis, and the decision whether to use the

crotchet, or some other instrument, is thereby facilitated very much.

Even in cases of placenta previa, Simpson and others have tried chloroform with complete success and safety, as it renders turning comparatively easy. All such cases are of course full of risk, whatever is done for them; but our present experience tells us a most excellent practice in bad cases of placenta presentation, is first to give some ammonia or brandy to the patient, then administer chloroform as directed for version or turning; bring down the child's feet, and leave the rest to nature.

One of the earliest effects of inhaling chloroform observable in an ordinary case of natural labour, or in a labour somewhat tedious, where the pains are ineffectual, is the inducing of short snatches of calm, refreshing sleep; there is observable very soon a much-wished for interval of release from agony and emotion, during which interval of sleep, especially under ether, or where the pains have been unsatisfactory and sluggish, the woman's reflex system is found to be remarkably increased or renewed in action. A very little ether or chloroform will answer every purpose, and if mixed with eau de Cologne there is not much reason to make too much display that your patient is taking chloroform at all. There has been a general terror of diseased heart and chloroform engendered in the public mind, by writers not well informed, which does no good whatever in lessening the danger of anæsthetics, but rather increases the danger by ignoring where really the danger lies.

Chloroform, as it lessens pain and emotion, is found to be most valuable also in puerperal convulsion cases, especially in epileptic convulsive attacks, which arise from mental excitement in young delicate women with first children, the victims of seduction. Here chloroform is more valuable than the lancet or leeches.

In puerperal convulsions of another order, with coma and apoplectic mischief, it is to be feared we can do very little for the poor woman; everything of course will depend on the part of the brain or medulla where the effusion exists. These

cases fortunately are very rare in practice. As a long observer of the late Dr. Todd's practice, I would not recommend venesection, though it is esteemed the orthodox practice, nor do I think chloroform at all indicated.

In the puerperal convulsions of a hysteric character that occur during gestation, ammonia, wine, valerian, iron, with attention to the kidneys and bowels, will prove more serviceable. If the woman though convulsed, is still conscious, I would not give chloroform. Such a woman possibly suffers from albuminuria; but she will probably get all right without any unusual assistance; she sheds tears, screams, or laughs, and then appears relieved.

There are, I think, two marked contraindications to chloroform in practice. One is hysteria, the other in an equal degree delirium tremens, or a tendency to intoxicated habits; any of these, or apprehension of pain, is much more dangerous than fatty heart or diseased valves of the heart, popularly believed to contraindicate the exhibition of chloroform.

From a consideration of the remarkable action of chloroform amounting to almost instant stoppage of the symptoms in such diseases, as chorea, asthma, tetanus, hooping-cough, &c.; all more or less convulsive in character, we can readily understand how chloroform may prove very valuable in properly diagnosticated cases of epileptic puerperal convulsions, especially those very frequent and severe cases due, as just said, to intense pain or emotion. Version of the child, for instance, becomes sometimes necessary in these instances; but our best chance of the version or turning not making things worse, (as the effort to introduce the hand without chloroform seldom fails to excite new convulsions,) our best chance of the turning succeeding is the chance that the chloroform administered in the interval between the convulsions renders the introduction of the accoucheur's hand safe and easy; thus, at the small town of Copenhagen last year, we hear of fifty-three cases of turning, under the influence of full anæsthesia, some of them cases of this description.

In addition to many similar instances of the use of anæsthetics in France and Germany, Shekelton, of Dublin (a very careful practitioner), has given nine cases of convulsions treated by inhalation of chloroform; Channing, of America, ten cases treated by inhalation of ether; and Braun, sixteen cases by chloroform, all with remarkable success. Such instances of the success of anæsthetics, indeed, might be indefinitely multiplied from the practice of my friends Drs. Maclintock, Sinclair, Doherty, Simpson, &c.

The "law of tolerance" of chloroform in midwifery practice, as in that of general surgery, becomes every year more defined, clear, and satisfactory. It is now quite evident that chloroform, like ammonia, bark, brandy, &c., is particularly called for where "shock" or convulsion to the nervous rather than to the vascular system is present; in other words, that where there is excessive pain, or exhaustion, or debility, from pain, fear, or other depressing emotion, loss of nerve-force, or nerve-force to be diminished, convulsions from excess of pain, &c., there chloroform is most safe and useful, rather than in the "shock," or exhaustion, or debility brought on by suppuration, hæmorrhage, diarrhœa, or delirium tremens. In one class of patients chloroform does good; in the other class you are never sure that it may not be hazardous to administer it.

The appearance of vomiting from chloroform deserves a short notice. I am strongly of opinion that vomiting from chloroform takes place only when the patient is much excited, the bowels neglected, or the stomach irritated by food. Vomiting always occurs in the second stage of anæsthesia, never in deep anæsthesia; it is most probably a reflex or excito-motor action of the easily excited cardiac end of the stomach; this end of the stomach and crura of diaphragm, with pneumogastric nerves, are as easily excited to the action of vomiting under chloroform as the eyelids to wink in ordinary health on the approach of a foreign body. The irritation of the pyloric end of the stomach causes pain, but never vomiting: this is the secret also of morning sickness in pregnancy.

If the lying-in patient be kept very quiet, the stomach empty, and has a little simple drink, whatever she prefers, to moisten the throat and mouth, vomiting will not prove troublesome. Champagne is almost specific in such cases, kreosote also.

Again, if vomiting is found persistent, as sometimes in general surgery, it is a sign of erysipelas, fever blood-poisoning coming on, but is not due to the chloroform.

In a case attended this year by the author, with another practitioner, persistent vomiting continued all through the labour; and he, on this account, abstained from the administration of chloroform. Vomiting continued all through, and even two days after the delivery the vomiting had scarcely subsided. The patient was arranging on the fifth to get up well about the eighth day, when violent uterine phlebitis and blood-poisoning showed itself. It was then found that the lady had previously met with a very serious accident, which injured the uterus. The vomiting all through this case afforded a hint that it was not safe to administer the anæsthetic.

We often meét midwifery patients who will take too much chloroform, if permitted; they ask, and beg, and entreat for chloroform—it lulls the pain so perfectly; here by mixing it with eau de Cologne, a single ounce of chloroform may be stretched over a period of two or three hours. The plan most advisable in natural labour is to begin the chloroform when the os uteri is about the diameter of a shilling; previous to that the woman will bear her pains with considerable fortitude—a point where relief from sensation of pain is thus obtained, without removing consciousness or reflex action; in other words, a state of anæsthesia without entire or complete narcotism. This is the point where chloroform is most safe in natural labour, but in cases of version or convulsions full narcotism will be required, but of course for a much shorter period of time.

What shall we say of hæmorrhage cases?

The chief point, I think, on which I have found various friends engaged in active private practice to be a little re-

served is post-partum hæmorrhage. A friend largely engaged in practice, in Paddington, tells me he fears this as a result of chloroform. Professor Simpson, in the note already quoted, says, "I have never shaken my mind quite free of the fear of post-partum hæmorrhage from the use of anæsthetics. I am not sure, however, that I have seen it more frequently since using chloroform than before using it, and I have certainly seen several instances of patients who had hæmorrhage in previous labours, without chloroform, and not show any signs of it when delivered under chloroform." And he says, "I have often used ergot along with chloroform with good effect." My late esteemed friend, Professor Montgomery, of Dublin, wrote me his views on the same subject, in nearly the same words. Hæmorrhage, I believe, is more common in the upper classes of society than the middle and lower classes; and possibly, on the average of cases, chloroform has no effect as to post-partum hæmorrhage one way or the other. Chloroform, in all cases relating to obstetric practice, even in instances of natural labour, should be used with the utmost carefulness. Chloroform, however, is an agent the more we know it the more we have confidence in it.

In craniotomy cases (if that operation itself is not doomed at no long distance of time to disappear from obstetric practice), the shock to the patient's nervous system is of course very great; but it is "shock" of that nature so much benefited by moderate use of stimulants, opium and chloroform especially. Cases of hæmorrhage, on the other hand, are those where we have most to fear from chloroform in large doses.

In a large number of cases of that terribly formidable operation, Cæsarian section, it has been found that one half of the whole number of operations succeed; it is probable, judging by ovariotomy cases, that the shock of Cæsarian section will be still further diminished by the discovery of chloroform. A patient operated on recently by Mr. Adams, at the London Hospital, and just described at one of the societies, affords a good instance of what chloroform does,

and should make us more hopeful of these cases; chloroform, in fact, being as useful as opium in reducing the shock to the nervous system in all such operations as these. We say nothing of the humanity of sparing a woman the agony of such an operation.

Obstetric operations.—I have administered chloroform in a large number of cases of other operations besides those immediately connected with labour, viz., the often tedious and very trying procedure for curing vesico-vaginal fistula, various ovariotomy operations, ruptured perinæum cases, enucleation of uterine tumours, &c.,—a field of practice as new and scientific, perhaps, as that for resection of joints in general surgery; almost as great a public blessing, and as much if not more entirely due to the discovery of anæsthetics. We have had, for instance, an opportunity of mentioning and watching thirty cures of cases of vesico-vaginal fistula in the practice of one operator alone; whilst in about a dozen of ovariotomy cases the operation as now done, with "all appliances and means," appeared, as it now is represented to be, less dangerous than hernia operations. There is no class of cases, in fact, that bear chloroform so well; so that more recently the formidable proceeding, as just referred to, for removing extra-uterine fœtation growths by operation, as well as Cæsarian sections, all under chloroform, and all with fair chance of success, have been restored to our books on surgery.

It may not be entirely out of place, and will be excused here, to say a few words, in conclusion, on another subject—the danger or unpleasantness of administering chloroform for other affections or other operations than pregnancies to pregnant women. There is more than one instance, as where chloroform was given for dentistry purposes, it has been followed by sudden and premature labour in the dentist's operating-room—a very awkward accident! Very considerable discretion and caution are necessary, also, in administering chloroform to females who happen to be menstruating at the time. A dentist at Montreal, in America,

was tried and found guilty of committing "rape" on such a patient; but a witness for the defence, on the trial, testified that it so happened that, in another instance, the same thing was stated by another lady, his wife; but such an affair was impossible, as he was all the time in the room, by her side. It was subsequently found, as also in the well-known case of Dr. Beale, of Philadelphia, that the three ladies were actively menstruating at the time; and erroneous dreams, so characteristic of this state and the second stage of anæsthesia, were excited.

It is not necessary, in this learned Society, to repeat that we do not advocate the indiscriminate use of chloroform or ether in *all* instances of labour; in very many cases there is no necessity for it at all, as in the instances met occasionally, where a woman with a sixth, or eighth, or fifth child may ask for it; there is here really very little pain, and no necessity for chloroform. It so happens however, fortunately, that where chloroform is most needed, as in primiparous patients, there it is found to act most favorably, and may be administered with the greatest safety. There is an unusually active reflex or tonic contraction of the uterus in primiparous females peculiarly favorable to chloroform, or should it be given to such patients for moderate pelvic distortion, to favour versional delivery, or for any other reason. Two accidents alone have occurred, supposed to be from anæsthetics,—one given by Dr. Barnes, where death occurred seventeen hours after the chloroform had taken effect; the case occurred in Norway. The patient should have got ammonia, and have had cold sprinkling; but she was bled from the arm! Another case occurs in the papers of Dr. Ramsbotham. But neither of the deaths is due to the chloroform; neither of the deaths was at all like the two modes of death, apnea or syncope, always seen from chloroform in these accidents. In conclusion, we may say—

Pain is not so necessary to the progress of a labour as it is popularly believed to be. The chief action of chloroform, when inhaled in moderate quantities, short of deep narcotism, is, undisguisedly and beyond doubt, on the sensory or

pain-giving ganglia—parts not at all engaged, or at least not necessarily engaged, in the process of labour. Thus, a labour may go on to a normal termination in a patient afflicted with loss of sensation and complete paraplegia, showing at once that the action of the sensory ganglia or of the cerebro-spinal or voluntary nerves is partly in abeyance during such a labour; in other words, pain, or an excessive or destructive impression on the sensorium, though it may co-ordinate such actions or movements, and urge the woman to "bear down" during her pains so called, is still non-essential to the process. Why, then, encourage pain? It is curious that the larger number of over a hundred deaths from chloroform in general surgery has been, not from shock, or hæmorrhage, or heart disease, but from apprehension of pain—fear of pain, but not actual "shock" of pain, or deep narcotism.

Of this apprehension of pain, what says general surgery? Dupuytren believed pain is a letting out of vital force, as injurious sometimes as hæmorrhage, or a letting out of blood. We, as medical men, as a matter of business become accustomed to pain; but does our patient do so? I believe ovariotomy a less dangerous operation, *quoad* chloroform, than tooth-drawing; in one we have relief of long-standing misery, in the other apprehension and chance of syncope.

Our mission as obstetric practitioners is one of tenderness, of thoughtfulness, of trust. Better far is it to lessen this pain, and apprehension of pain, to lean to the side of gentleness, and help, and health for our patient, in these hours of pain and anguish, than to neglect this apprehension of pain and stand upon the ancient ways of our ancestors—that of allowing the patient to become exhausted. There can be very little doubt, I think and admit, that gestation ending in labour is a natural, an essentially natural process; wonderful for its completeness and beauty in a physiological point of view. We have to meet cases of labour, however, so often that exceed the line of nature, and are unnatural and morbid—we meet so many cases of moderate pelvic distortion, for instance, where turning proves so beneficial, and

chloroform is indispensable—where the pain of forceps operations, at any rate, is non-essential—that it becomes a matter of duty to lessen such suffering.

To many patients, a labour without chloroform is a scene of anguish and dreary suffering; indeed, I would say that in a large majority of bad labour cases there is an amount of suffering and pain, attended with a sacrifice of vital force, that we cannot estimate sufficiently. I do not place much emphasis of the usual kind upon the nutrition and maturation of the fœtus, as exhausting or drawing away the vital energies of the mother; the sacrifice of vital force referred to now is familiar to us all, in any case of tedious or powerless labour. We might as well say that after a long expenditure of muscular and nervous power, for instance, in walking over a mountain in Wales or Switzerland, there is no waste of vital force, which seeks repose or sleep, as to say in a tedious labour, with the constant muscular effort of the uterus and exhaustion of reflex and sensorial energy, that we have only "physiological pain," that ought not to be interfered with, except possibly by the long forceps, drawing at any price the child's head into the world, and in the wrong axis of the pelvis.

As to fatal accidents from chloroform, it is quite possible in the next ten or twelve years we may have, what we have not yet had, one case or two of sudden death, exactly like that from chloroform, but still not to be due at all to this agent. Dr. Churchill has published fifty such cases, precisely like deaths from chloroform, but chloroform was not used in any one of them; he gives twenty-two cases of sudden death from cardiac syncope occurring during or immediately after labour, four others from shock, twelve from absorption of air by uterine sinuses, and twelve from clot in the pulmonary artery. I mention these accidents as they are exactly similar to those from chloroform; but some one will say these accidents should make us doubly careful not to recommend chloroform. I do not think so. They are deaths chiefly from exhaustion of the patient, which, we have

seen, the stimulus of chloroform diminishes rather than increases; there is no danger, in fact, in chloroform in what show of insensibility it produces; in the words of Cymbeline—

> "More than the locking up of the spirits, a time
> To be more fresh reviving."

If we lessen pain in tedious labours, we economise strength, and by version prevent craniotomy.

As to instrumental deliveries, all our present knowledge of obstetrics tends rather in the opposite direction. By means of chloroform, we shall probably get rid of the unpleasant and exhausting operation of craniotomy. Versional delivery will also supersede the forceps in many cases; by economising vital force also, or what is nearly the same thing, economising reflex action, by preventing sleeplessness and exhaustion by anæsthetics, we shall have fewer cases of powerless labour. We must not look on pain as entirely necessary or indispensable in labour, but rather view it in excess as an evil to be prevented; we must anticipate exhaustion, and thus lessen the demand for the forceps. We may be more hopeful too of convulsion cases, and the irritable form of puerperal mania, according as the recent discoveries in the nervous system are studied. We must not stand too, as hitherto, on that very unwise dogma of our ancestors, that because they did without chloroform we should follow their example. Nor need we fear the accumulation of chloroform in the system, nor disregard emotion as a disturbing element in our prognosis; and last of all, not forget the subsequent recovery of our lying-in patients is decidedly favoured by the careful use of anæsthetics.

To insure the safety of chloroform, the preponderance of opinion now over Europe is to the following effect:—The muscles of respiration should be watched, rather than the pulse, and these muscles at once stimulated by cold dashing, and artificial respiration, if stoppage of either action threatens either pulse or respiration. There is reason to conclude that, in a vast majority of cases, the intercostals

scaleni, serratus, and other respiratory muscles become so deeply anæsthetic as to stop acting; in animals this has been observed in thousands of instances. Under amylene and ether it is undoubted ; so much so that artificial respiration fails to restore these muscles, when animals are rendered deeply anæsthetic by those agents.

The heart stops, not by ordinary syncope, but as a secondary result of the stoppage of the respiratory muscles ; the indications of the pulse are only valuable negatively, and to a person much accustomed to the administering of anæsthetics.

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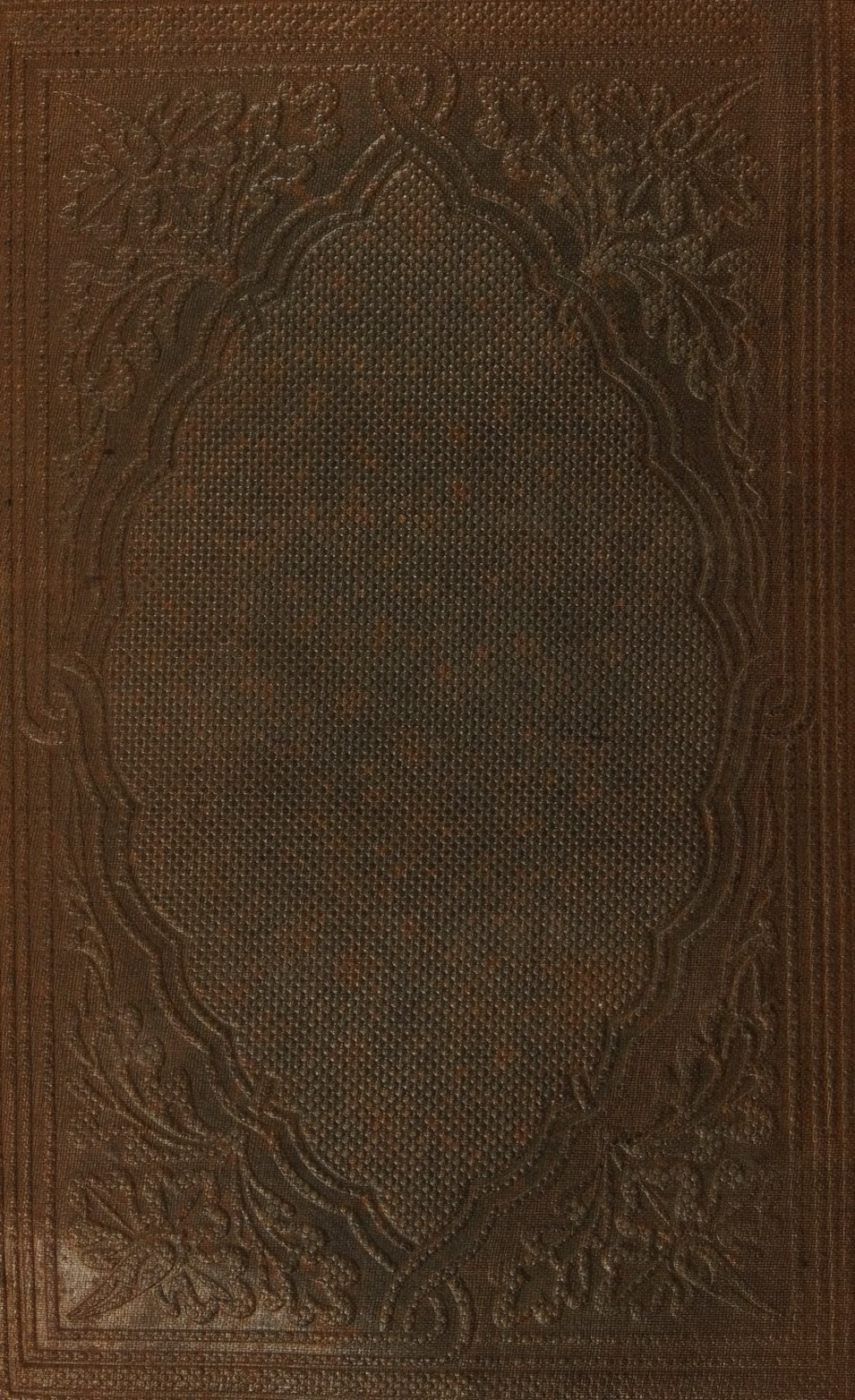
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